Information Resources Management

Health Care Financing Administration

Health Care Quality With Technology

Fiscal Year 1994 Information Resources Management Five Year Plan

(1994 - 1998)

May 1992

HCFA FISCAL YEAR 1994 IRM STRATEGIC AND TACTICAL PLAN

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Executive Summary

The purpose of this Plan is to describe The Health Care Financing Administration's (HCFA) strategies for providing the information required to accomplish its mission. For the first time, HCFA will also describe its strategy for managing the Federal Information Processing Systems (FIPS) of HCFA's Medicare contractors.

Program Assumptions

National Health Care Financing Crisis

Continued Program Growth

Increased Need for Program Information

HCFA is the primary Federal agency responsible for administering the Medicare and Medicaid programs. Each year, HCFA reviews how changes in legislation, Department objectives, the health care industry, the beneficiary population, technology, and other considerations affect its strategic Information Resources Management (IRM) direction. The growing political interest in national health care policy and the many proposals on the floor of Congress assure that there will be further changes in the Agency's mission. Under current law, national health expenditures will reach $1.6 trillion by the year 2000 or 16.4 percent of the Gross National Product (GNP). The nation faces the challenge of containing this growth within reasonable limits, while ensuring that the health care industry provides quality care.

Over the past 4 years, each Omnibus Budget Reconciliation Act (OBRA) has added to or expanded HCFA's programs, with direct effect on the Agency's IRM resource requirements. In this volatile legislative environment, HCFA must continue to pay appropriate beneficiary claims, take action to contain health care costs, and encourage the delivery of appropriate, high quality health care. HCFA has emphasized 3 goals for the FY 1994 legislative agenda.

- promote incentives to ensure receipt of good value for health care dollars;
- enhance the efficient operation of Medicare and Medicaid. In particular, suggest alternatives to statute required regulations that are not cost effective; and,
- encourage the transition of our programs away from fee-for-service and toward coordinated care arrangements.

In addition, the Secretary and leaders from the health insurance industry and hospital and physician groups on behalf of the Forum on Administrative Costs issued a vision for a future health care system nearly devoid of paperwork. This vision is the basis for a fourth goal:

- o change the Nation's Health Care System to be more inclusive, equitable, and efficient

The following matrix summarizes the four programmatic goals of this year's plan and the strategies that support them.

PROGRAM GOALS

GOAL	STRATEGY
PG1 Change the Nation's Health Care System to be more inclusive, equitable, and efficient	S1 Reduce national administrative health care costs
PG2 Ensure receipt of quality health care	S2 Implement the Health Care Quality Improvement Initiative
	S3 Monitor health care providers
	S4 Support Agency for Health Care Policy and Research Effectiveness Initiatives
PG3 Enhance the efficient operation of Medicare and Medicaid and reduce administrative costs	S5 Improve the operations of Medicare agents
	S6 Improve Medicare contractor monitoring
	S7 Improve Medicaid administration
PG4 Encourage the shift away from fee-for-service and toward coordinated care arrangements	S8 Improve beneficiary satisfaction with coordinated care arrangements
	S9 Improve administration of coordinated care programs

Management Assumptions

Limited Resources

Move to Single Site

Information Support for Other Agencies

New technologies will be a key factor in the analysis of alternative future scenarios and the implementation of new programs.

HCFA IRM VISION

HCFA will apply appropriate technological resources to support the Agency's programs to fund high quality, effective health care programs for the aged, disabled, and poor population.

HCFA will support this vision with a combination of information goals that ensure the agency has adequate information resources available to operate mission critical systems and to implement new legislation with the minimum cost to the public.

Technology Assumptions

Open Systems Standards

Maturing Technology

Client/Server Environment

HCFA's architecture for providing information services will:

1) manage the Agency's vast volume of data;
2) provide ease of use for the user; and
3) leverage the benefits of technology advancement to contain cost.

With the consolidation of HCFA central office components into a single facility, HCFA will establish processing and communications abilities that are compatible with current needs and can be expanded as programs and technology change.

The Agency has established a rigorous program to maintain an adequate workforce. As the current workforce "grays" and retires, the Agency recruits and trains capable replacements to continue support for current and future missions and to oversee contractors.

HCFA's databases will become a rich source of information for both internal analysis and for a large external user community.

The following matrix summarizes the HCFA's IRM vision and the related goals and strategies.

HCFA IRM GOALS AND STRATEGIES

VISION	GOAL	STRATEGY
Maximize the return on the investment in PRISM	IG1 Use technology to enable employees to perform their job more effectively	S1 Information Systems Empowerment Strategy
		S2 Evaluate Future Data Base Management System Needs
Single site	IG2 Establish effective infrastructure and maintain continuity of services at the new single site facility	S3 Acquire Bridge Central Processing Unit Capability
		S4 Provide Local Area Network topology
		S5 Develop single site administrative systems
IRM Expertise	IG3 Ensure that HCFA continues to have adequate IRM staffing or contractor support	S6 Recruit and train HCFA staff
		S7 Acquire software development contractor support
ADP capacities consistent with Agency's needs	IG4 Ensure that adequate ADP capacities are available to support growth and development in HCFA's programmatic mandates and new information processing demand and initiatives	S8 Maximize use of existing ADP facilities
		S9 Strengthen the capacity management and planning function
		S10 Acquire additional ADP capacity as needed
HCFA databases will become a rich source of information for a large external user community	IG5 Provide HCFA data to external users	S11 Provide data to Agency for Health Care Policy and Research, Social Security Administration, Department of Veterans' Affairs, CHAMPUS, etc.

HCFA IRM ORGANIZATION

HCFA'S IRM functions are distributed throughout the Agency, as appropriate. The primary IRM organizations are:

- The Bureau of Data Management and Strategy serves as the focal point for the management of HCFA's information resources. The Director also serves as HCFA's Principal IRM Official.
- The Office of Budget and Administration conducts the Information Collection Budget process and the Records Management Program.
- Components under the Associate Administrator for Operations oversee the IRM activities of the Coordinated Care Organizations, Medicare contractors, State survey agencies, End Stage Renal Disease (ESRD) networks, and PROs, with appropriate review and approval by the Principal IRM Official.

HCFA IRM OPERATING PRINCIPLES

HCFA's IRM principles focus on:

- Implementation of Departmental IRM policies.
- Full and active participation by user components to ensure HCFA systems will meet the Agency's mission-related information needs.
- Useful, timely, accurate, consistent, and accessible data and information to administer HCFA programs effectively.
- Managing its IRM resources in an effective and efficient manner.

STRATEGIC ISSUES

- The effect of potential legislation expanding HCFA's current functions such as health care reform. Where possible, this plan identifies functional areas that would change and would require significant IRM support based on specific pending legislation. The plan does not attempt to address the full range of requirements of any single comprehensive health care bill.
- The effect of the budget deficit on HCFA's future budget allocations.

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

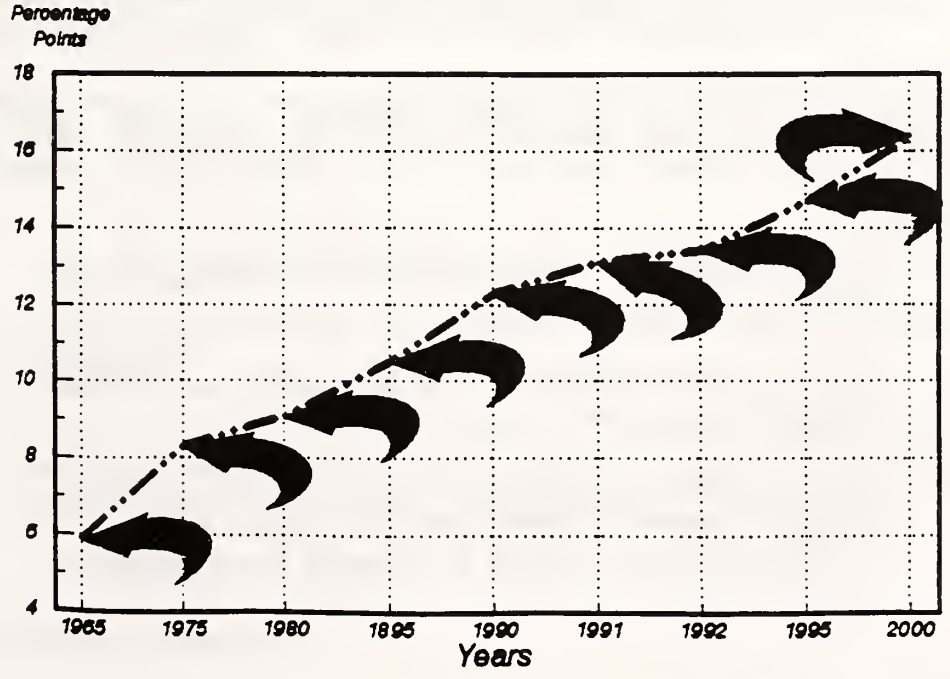
Chapter II
Strategic Plan (FY 1994 - 1998)

CHAPTER II
HCFA'S STRATEGIC PLAN
(FY 1994 - 1998)

Annually, the Health Care Financing Administration (HCFA) reviews how changes in legislation, Department objectives, the health care industry, the beneficiary population, technology, and other considerations affect its strategic Information Resources Management (IRM) direction. Over the past few years, sweeping changes from new legislation and increases in the beneficiary population and claims volume have required a parallel growth in HCFA's Federal Information Processing Systems (FIPS) resources. The growing political interest in national health care policy, and the many proposals on the floor of Congress, assure that there will be further changes in the Agency's mission. The nation faces the challenge of containing this growth within reasonable limits, while ensuring that the health care industry provides quality care. New technologies will be a key factor in the analysis of alternative future scenarios and the implementation of new programs.

Also, HCFA must ensure the Agency has integrated internal operational plans with those of the organizations that administer parts of our programs such as the Medicare intermediaries and carriers. In 1991, the Office of General Council issued a finding that Medicare contracts are Federal Information Processing Systems (FIPS) resources contracts and therefore subject to IRM planning guidelines. This year HCFA's IRM Plan includes a description of the operating environment and IRM plans of these Medicare contractors.

National Health Expenditures as a % of GNP



SECTION A -- STRATEGIC PLANNING ASSUMPTIONS

I. PROGRAMMATIC ASSUMPTIONS

The Nation is in the middle of a major health care crisis that is rapidly getting worse. The Nation is suffering hyperinflation in health care costs. An increasing number of Americans have inadequate or no health insurance coverage. High health insurance premiums charged to many small businesses are affecting the Nation's worldwide competitiveness. Many of these small groups find that insurance is not available when they need it -- when employees become seriously ill.

A. RISING NATIONAL HEALTH EXPENDITURES

Some quantifiable measures of the crisis discussed above include:

- In 1990 national health expenditures were $670.9 billion or 12.3 percent of the Gross National Product (GNP). By 2000 the total will climb to $1,615.9 billion or 16.4 percent of GNP.

- According to the General Accounting Office (GAO), administrative costs of the national health care system are about 1.5 percent of GNP, or 10 percent of national health costs. Thus only about $9 out of every $10 spent directly benefits the patient. While HCFA has a considerably lower overhead rate for administering Medicare (1.7 percent counting contractors and support from other Government agencies), the Agency needs to take a leading role in finding ways to reduce its own costs and those of the Nation relative to total outlays.

In the face of this growing national health care crisis, the Nation will enlist HCFA more and more in the quest for a solution. HCFA, with its rich store of health care data, is in a unique position to help explore:

1.) how to make the nation's health care system more inclusive and equitable;

2.) how to contain rising health care costs and maintain quality of care; and,

3.) how to reduce the administrative burden of the current systems on beneficiaries, health care practitioners, and claims processing organizations.

HCFA's functional responsibilities focus primarily on the Medicare and Medicaid programs. Currently, the Agency has some responsibilities (e.g., actuarial projections, the Clinical Laboratory Improvement Amendments of 1988 (CLIA 88), and support for other Agencies) that extend beyond these programs. This national health care financing crisis, however, is stretching HCFA's involvement further.

B. CONTINUED GROWTH OF MEDICARE AND MEDICAID

- Legislation will be enacted during the planning period that will alter these programs substantially.
- There will be about 10 million more Americans over 65 in the year 2000 than in 1980 - a 40 percent increase from 26.1 million to 35.7 million.
- The Board of Trustees for the Hospital Insurance (HI) and Supplementary Medical Insurance (SMI) Trust Funds report that the HI Trust Fund "is severely out of financial balance" and will be drained between the years 2000 and 2009 if there is no significant legislation to increase financing or reduce outlays.
- The number of people 65 or older with limited activity due to chronic conditions will increase from 10.8 million in 1980 to 16.4 million in 2000, a 52 percent increase.
- The number of elderly in nursing homes will triple by the year 2000 from slightly over one million in 1980 to three million by 2000.
- By 1997, Medicare contractors will process over 1 billion claims annually.
- Since 1989, Medicaid costs have increased an average of 23 percent per year.
- In FY 1993, combined federal and state spending for Medicaid will exceed $153 billion. (The costs in 1989 were $61.2 billion).

C. EXPANDED USE OF PROGRAM INFORMATION OVER THE PLANNING HORIZON

HCFA will conduct its own studies for answers to the nation's problems and provide access to its data to public and private health policy researchers for their own analysis in areas such as:

- o increased patterns of care and outcome analysis to improve the quality of health care;
- o information to identify ways to streamline administrative processes and reduce costs;
- o information to identify an "episode of care" and the effectiveness of particular procedures;
- o refinement of current payment methodologies through analysis of cost and charge data for different provider and supplier types;
- o provision of Medicare pricing data to other health care organizations (e.g., Medicaid State agencies, Department of Veterans' Affairs (VA));
- o cross-over analysis between both Medicare and Medicaid programs at the beneficiary and physician levels;
- o cross-over analysis between the Medicare coordinated care and fee-for-service programs;
- o collection of more beneficiary-specific clinical information in different settings and on different groups, such as peer review samples, frail elderly, Medicaid recipients, the coordinated care population, and institutional residents;
- o expanded data matches of HCFA data to files of working aged (e.g., Office of Personnel Management (OPM), employer group health plans) to identify where other payers are primary to Medicare;
- o expanded support for research into medical technology issues (e.g., liver transplants);
- o expanded data sharing arrangements with public and private organizations;
- o implications of Acquired Immunodeficiency Syndrome (AIDS) for Medicare and Medicaid expenditures;
- o implications of changing current Medicare premium, deductible, or copayment policy based on beneficiary income;
- o increased collection of data on physician-based clinical laboratories;

- o increased collection and analysis of information on uninsured population groups; and

- o provision of data to the Medicare Geographical Classification Review Board to help them decide hospitals' geographic classifications.

II. MANAGEMENT ASSUMPTIONS

A. BUDGET

The budget deficit and severe restrictions on discretionary spending will affect HCFA's ability to improve or expand its IRM support over the next decade. Simultaneously, management will look toward IRM as one way to satisfy increasing programmatic requirements. HCFA will focus on improving the cost-effectiveness of information processing by implementing the appropriate technology to improve efficiency and raise productivity. Since data is a valuable Agency asset, HCFA will also focus on improving data quality and access.

B. STAFFING

The Omnibus Budget Reconciliation Act (OBRA) of 1989 required HCFA to study the capabilities of its workforce. The National Academy of Public Administrators (NAPA) Study concluded that HCFA is performing reasonably well at present, but that it needs to begin strengthening its human resource infrastructure immediately. As a result, the Agency is developing a plan to enhance its IRM capability and expertise over time.

C. SINGLE SITE

A specific event affecting HCFA's IRM environment in the next decade will be the physical move to a single site. This move will require additional management systems in the functional areas currently supported by the Social Security Administration (SSA) (e.g., automated supply store, library, parking, guard management, and facilities management).

The current capacity plan calls for upgrades and connectivity through the implementation of Local Area Network (LAN) topology to occur in conjunction with the move. The current site constricts the size of the HCFA Data Center. HCFA will exercise management controls to contain HCFA Data Center (HDC) growth without critically jeopardizing service. When absolutely essential, capacity upgrades will be accomplished "in-place" by the "swap-out" of lower capacity

equipment (e.g., replacement of single and double density Direct Access Storage Devices (DASD) with triple density).

D. EXTERNAL AGENCY SUPPORT

Due to the ever increasing demands that external sources place on HDC resources, HCFA plans to shift a portion of the responsibility for access control to its external community. HCFA will provide the "client" with data via a processing "pipeline." The client will manage the pipeline activity and regulate the distribution of the information to their users. SSA's plan to have its field offices update the Billing and Collection Master (BCM) through their Data Communication Utility network and the HDC/National Computer Center (NCC) System Network Interface is an example of this approach with the NCC acting as the client and the HDC as the server.

III. TECHNOLOGY ASSUMPTIONS

During the planning period, HCFA end users' ability to operate in the redesigned environment will mature, and several improvements in the automatic data processing (ADP) industry will advance their capabilities further.

A. STANDARDS

The Open Systems Interconnect standard will permit messages and data to be delivered to the user in the format compatible with the user's information processing environment. The Open Software Foundation will enable interoperabililty and portability of applications among vendors and across platforms.

B. COMPUTER CHANGES

New processor and DASD technology will provide more cost-effective and compact mainframe support. More powerful workstations will provide greater processing power and increased functionality at the user level. Some of HCFA's current processing platforms (e.g., the IBM 9370s) have or will become obsolete.

C. NEW TECHNOLOGIES

Client/Server Concept

The client/server computing is a concept that exploits the power of the workstation and the network to improve the efficiency of information processing and productivity of the users. In client/server computing, software executing between the operating system and the

application relieves end users of the need to learn and navigate through complex communications and programming tasks.

Other Technologies

The following technologies will be fully mature during the planning horizon:

- automatic text management (HCFA is piloting this technology with its Medicare manuals in conjunction with CD-ROMs);
- electronic imaging (Medicare and other contractors are currently using this technology);
- graphical user interfaces;
- fourth generation languages;
- optical storage (e.g., Compact Disks (CD), Laser technology, Digital Audio Tape);
- communications networking;
- expert systems: and.
- artificial intelligence.

The application of standards and the improved functionality brought by client/server computing will enable HCFA to evaluate many of these new technologies. HCFA will select technology implementations that yield long-term benefits.

SECTION B
PROGRAM GOALS
AND INFORMATION NEEDS

I. LEGISLATIVE OVERVIEW

Each year, Congress passes laws that affect HCFA's programs. These provisions have frequently caused heavy new workloads in the IRM area. New laws frequently mandate new data collection and data analysis efforts and more reports to Congress. Currently the Administration and Congress are considering a range of proposals that would radically alter the nation's health care policy. Among others, these proposals include:

- o a combination voucher and tax deduction system that would help the poor and self employed to purchase private health insurance;
- o an employer-based system in which employers could either offer a private health insurance policy for their employees or pay into a State-run fund ("play or pay"); and,
- o a national health insurance system similar to the Canadian System.

Many of these proposals involve a large State administrative role. Under every scenario, however, HCFA's role would change. Most probably, HCFA would continue to have a major role in overseeing Federal and Federally assisted health care financing and quality assurance programs.

Significant among recent laws are the various Omnibus Budget Reconciliation Acts. Over the past 4 years, each OBRA has added to or expanded HCFA's programs. In addition, each has reinforced or refined portions of earlier laws. Examples of expansions include:

- o OBRA 87 required HCFA to collect and provide various information on nursing homes;
- o CLIA 88 requires that all laboratories meet quality performance standards, including those in physician's offices;
- o OBRA 89 required HCFA to revise the current Medicare physician payment methodology and establish physician volume performance standards. It also established the Department's Effectiveness agenda; and,

- o OBRA 90 requires HCFA to determine rebates from drug manufacturers that sell drugs to States through the Medicaid program.

These requirements have had a tremendous impact on HCFA's IRM resources both in terms of equipment capacity and staff. HCFA plans to factor projections of resource requirements in the Information Technology Systems (ITS) budget request to accommodate some level of new legislative activity equal to our past experience. Refinements from the legislation listed above focus on:

- o Payments to provider groups such as:
  - inpatient hospitals (with emphasis on urban and rural hospitals), outpatient facilities, Ambulatory Surgical Centers (ASC), clinical laboratories, nursing homes, home and community-based facilities, drug manufacturers, physicians and limited practitioners, pharmacists, Durable Medical Equipment (DME) suppliers, and Coordinated Care providers.
- o Medicare Secondary Payer (MSP) determinations;
- o Physician financial interest in clinical laboratories;
- o Clinical data collections for beneficiaries in specific settings;
- o Medigap policy regulation and certification;
- o Adjustments to the Medicaid Prescription Drug Rebates;
- o Expanding Medicaid benefits to cover more infants and pregnant women and protecting spouses from impoverishment; and,
- o Measuring medical effectiveness in various settings.

II. ADMINISTRATOR'S GOAL OVERVIEW

HCFA is focusing on the following three goals for FY 1994:

- o promote incentives to ensure receipt of good value for health care dollars;
- o enhance the efficient operation of Medicare and Medicaid. In particular, suggest alternatives to statute required regulations that are not cost effective; and,

GOAL:
The desired or needed results that an Agency should achieve over the long-term.

- o encourage the transition of our programs away from fee-for-service and toward coordinated care arrangements.

STRATEGY:
A broad statement of the long-term direction an Agency will follow in accomplishing its identified goals.

The following matrix maps the four programmatic goals of this year's plan (the three articulated by the Administrator and a fourth predicated on the expectation that HCFA will support efforts to improve the current national health care financing system) to the information strategies that support them. The section after the matrix is a brief description of the projects supporting these goals that will require IRM support. Goals are numbered PG1-PG4, Strategies are numbered S1-S9, and Objectives are numbered O1-O16. Projects that are anticipated in response to pending legislation are indicated in italics. For the budget, HCFA will specifically identify the requirements for each proposal and project their costs. ATTACHMENT A provides the HCFA Functional Model. A list of IRM projects and their relationship to HCFA's Functional Model and this Plan is shown in ATTACHMENT B.

PROGRAM GOALS

GOAL	STRATEGY
PG1 Change the Nation's Health Care System to be more inclusive, equitable, and efficient	S1 Reduce national administrative health care costs
PG2 Ensure receipt of quality health care	S2 Implement the Health Care Quality Improvement Initiative
	S3 Monitor health care providers
	S4 Support Agency for Health Care Policy and Research Effectiveness Initiatives
PG3 Enhance the efficient operation of Medicare and Medicaid and reduce administrative costs	S5 Improve the operations of Medicare agents
	S6 Improve Medicare contractor monitoring
	S7 Improve Medicaid administration
PG4 Encourage the shift away from fee-for-service and toward coordinated care arrangements	S8 Improve beneficiary satisfaction with coordinated care arrangements
	S9 Improve administration of coordinated care programs

PG1 CHANGE THE NATION'S HEALTH CARE SYSTEM TO BE MORE INCLUSIVE, EQUITABLE, AND EFFICIENT

The President has submitted a comprehensive, market-based reform plan. This proposal expands access to and reduces the costs of health insurance, encourages the growth of coordinated care, and reduces administrative costs. Features of the plan would require major changes in the health care financing information environment. For example, the plan provides a transferrable health insurance credit or tax deduction depending on income. This would involve complex coordination with the Internal Revenue Service (IRS). Even without passage of legislation supporting this proposal, the Department has begun the Computerized Patient Records (CPR) project to reduce administrative costs consistent with the reform plan.

S1 REDUCE NATIONAL ADMINISTRATIVE HEALTH CARE COSTS

On November 5, 1991, the Secretary and leaders from the health insurance industry and hospital and physician groups on behalf of the Forum on Administrative Costs issued a vision for a future health care system nearly devoid of paperwork. This vision was based on an electronic network that would link the physicians, hospitals, insurers, and other health care providers and payers within a given community.

The Bureau of Program Operations has submitted a legislative proposal to change the Federal Rules of Evidence to allow the introduction of electronic data as evidence in court. If successful, this legislation would remove obstacles to expansion of the use of electronic processing to reduce costly paper processing by HCFA's claims processing contractors, and in other HCFA operations.

O1 IMPLEMENT THE COMPUTERIZED PATIENT RECORDS (CPR) INITIATIVE

Nationwide use of computerized medical records will benefit patients, providers, payers, and the Federal Government through:

- o Improving the quality and coordination of care, by providing health care practitioners swifter and easier access to data and images, and by providing "expert systems" to help with diagnosis and treatment.

- o Reducing health care administrative and other costs, by saving clerical time, nurse time, and physician time and eliminating duplicative tests;

- o Facilitating both institutions' internal quality assurance and external quality assurance by the Peer Review Organizations (PROs) and by accrediting organizations.

- o Providing detailed clinical data for use in outcomes and effectiveness research and therefore facilitating the development of clinical practice guidelines.

One interesting technological factor of the proposal is the "smart card." The card is envisioned as a piece of a larger electronic health communications network that will provide a transparent, paperless flow of information between payers, providers, patients, and financial institutions.

HCFA, with its broad experience in operating a major health insurance claims processing operation, is a major player and is represented on several task forces. The Agency will also look at current processes to optimize the benefit of the CPR investment for HCFA operations. Several examples are:

1. HCFA's San Francisco Regional Office (RO) is testing a "smart card" that contains the Medicare beneficiary's eligibility and program coverage status.

2. Medicare claims processing already leads the health insurance industry in electronic data interchange. HCFA's goal is to build an all-electronic environment for Medicare claims by the year 2000. HCFA representatives on the Workgroup for Electronic Data Interchange will share experiences and ideas with the Workgroup to meet their goal and strengthen the national effort.

3. HCFA managers responsible for the development of the Uniform Clinical Data Set (UCDS) are aware that the implementation of CPR could eliminate the need for that data collection effort and are factoring an eventual replacement of UCDS information with extracts from the CPR into their plans.

While the CPR initiative supports two of the Administrator's goals, it is treated separately because it is part of the President's Health Care Reform package and a distinct Department-wide/private sector initiative.

PG2 ENSURE RECEIPT OF QUALITY HEALTH CARE

S2 IMPLEMENT THE HEALTH CARE QUALITY IMPROVEMENT INITIATIVE (HCQII)

The ultimate goal of the HCQII is to help health care providers improve the mainstream of care through the promulgation of practice guidelines. Current review practices will fundamentally change, including:

- o giving PROs explicit, nationally uniform criteria to examine patterns of care and patterns of outcomes;
- o focusing review on observable patterns of care and outcomes differences rather than on unusual episodes of care that are statistical outliers; and,
- o providing these patterns to providers so that they may conduct more intrusive, detailed studies of who, when, and why.

Based on analysis, HCFA found that a new approach to PRO review would improve its efficiency and effectiveness.

- o In retrospective reviews under the 3rd PRO scope of work, PROs confirmed quality problems in approximately 2.3% of cases they review and denied payments in approximately 2.5% of reviewed cases. Importantly, a significant portion of these problem confirmations and payment denials can be traced to a lack of required documentation, rather than to substantive clinical issues identified by PRO reviewers.
- o The 3rd scope of work requirement for PRO prior authorization of ten surgical procedures yielded denials in only 0.14% of preprocedure reviews. Longitudinal analysis of selected high volume procedures subject to preadmission review indicates that changes in procedure incidence cannot be attributed to PRO activities.

Since its inception in 1984, PRO review has centered on the case-by-case review of individual medical records, selected primarily on a sample basis, using intuitive local clinical criteria. This approach is costly, compartmentalized, and confrontational. Most importantly, it inhibits meaningful change in provider and practitioner behavior. New conceptual approaches to quality assurance offer not only the promise of increased cost effectiveness, but the opportunity for the PRO program to make a profound contribution to the improvement of care provided to Medicare beneficiaries.

Based on recommendations from outside entities that support new approaches to quality assurance, such as those cited in the Institute of Medicine report, and to strengthen the ability of health care organizations and practitioners to assess and improve their own performance, HCFA has developed a new strategy for health care assurance. This strategy, the HCQII, will move the PRO program from its emphasis on individual (and often isolated) clinical errors to helping providers improve the mainstream of medical care. HCFA is working closely with the PROs and the health care and consumer communities on this initiative.

The HCQII has its conceptual foundations in the health care variations research of the last decade -- which examines variability in care and outcomes among providers and geographical areas -- and in the continuous quality improvement models now being adapted to health care from the experience of other industries. Under the HCQII, the PROs will examine variations in both the processes and the outcomes of care. PROs will then share this data with hospitals and physicians, and work with them to interpret and apply the findings.

The transformation of the PROs lies at the heart of the HCQII. In the 4th scope of work, PROs will shift their focus from individual, manual case review to the analysis of patterns of medical care and outcomes. The data for PRO analysis will primarily be drawn from the Uniform Clinical Data Set (UCDSS), which will provide detailed clinical information on a sample of Medicare inpatient discharges. The UCDSS is a Government furnished software system developed by HCFA. The UCDSS will be phased-in starting with a four percent sample of Medicare inpatient discharges the first year -- approximately 325,000 records. This estimate is based on actual medical record abstraction beginning the fourth month of the year; the first three months of the year will be devoted to start-up. The UCDSS will increase to a ten percent sample by calendar year 1996 -- approximately 1 million records each year.

O2 IMPLEMENT THE UNIFORM CLINICAL DATA SET SYSTEM

As part of the HCQII, PROs will analyze patterns of medical care and outcomes using the UCDSS. The UCDSS will be compiled by private entities with HCFA contracts to abstract medical records with the UCDSS direct data entry software. For the typical inpatient medical record, the UCDSS will capture 200 to 350 data elements, including patient demographics, history, and medical intervention. The UCDSS collects data from a ten percent sample of Medicare inpatient hospital discharges (about 1 million records a year). HCFA will award IRM contracts:

- o to improve the UCDSS abstraction software;
- o to refine and expand the Patient Care Algorithm System of case selection; and,
- o to abstract UCDSS data from medical records (the Clinical Data Abstraction Centers (CDAC) procurement).

The short-term value of UCDSS data will be to help analyze patterns and outcomes of care and to give providers information that will allow them to identify and improve ineffective practices. The longer-term application of the UCDSS is to allow the Patient Care Algorithm System (PCAS) to select cases for PRO physician review. The PCAS is an expert system that will identify cases for physician review in a more uniform and reliable manner than traditional PRO case review.

Six PROs have implemented UCDSS and all 53 PROs will be operating under the 4th scope of work and performing UCDSS pattern analyses by the end of calendar 1993. To support the PROs in their new workloads, HCFA will award UCDSS data abstraction contracts by the end of calendar 1992. To facilitate an orderly transition to the 4th scope of work, HCFA will work with the PROs to curtail traditional nurse review gradually and to make necessary preparations for new PRO responsibilities. HCFA will continue to work closely with the PROs, other government agencies, the hospital and physician communities, academic institutions, consumer groups, and other interested parties to cooperatively pursue the promise of the Health Care Quality Improvement Initiative.

The national UCDSS will reside at the HDC.

O3 CONDUCT PATTERNS OF CARE, EXPENDITURE, AND OUTCOME STUDIES

During the planning horizon, HCFA will acquire several rich new data holdings, including:

- o the UCDSS;
- o Post-hospital Outcome Studies (PHOS) -- beginning in FY 1993 research contractors will survey beneficiaries with selected illnesses before hospitalization and at specific intervals after discharge;
- o the Current Beneficiary Survey (CBS) -- data on the use, cost, and payment source for health care of a sample of 12,000 Medicare eligibles.; and,
- o the Health Status Registry -- longitudinal data on 40,000 beneficiaries entering the Medicare program with 2-5 year resurveys to monitor their changing health and functional status.

A variety of actuarial, research, and policy studies will link these data with the National Claims History (NCH) and other data to assist in the development of practice guidelines.

S3 MONITOR HEALTH CARE PROVIDERS

O4 COLLECT AND ANALYZE INFORMATION ABOUT PHYSICIANS AND SUPPLIERS THAT PROVIDE MEDICARE AND MEDICAID SERVICES

HCFA annually updates and republishes the Medicare Physician Payment Reform (PPR) and Durable Medical Equipment (DME) fee schedules.

By the end of FY 1994, the Intern and Resident Information System (IRIS) will provide information to ensure that correct Medicare payments are made for indirect medical education and direct graduate medical education. The system will eliminate duplicate reporting of intern and resident counts which inflate payments.

In the Medicaid area, often payments to physicians are lower than payments from private insurance and Medicare. More and more physicians will not accept Medicaid patients, who as a result, have restricted access to care. To correct this disparity, HCFA proposes developing a system to perform

additional monitoring of payment rates to assure that State Medicaid programs are making adequate payments for these services.

OBRA 89 required that States assure adequate participation of Obstetricians and Pediatricians (Ob/Ped) in the Medicaid program and that this assurance be provided as part of the approval of the Ob/Ped State Plan Amendments. Currently, most States cannot provide this assurance because it requires complex analysis of the Medicaid Management Information System and other large ancillary databases. HCFA proposes assisting them to develop a system to analyze these databases and calculate participation rates at the State-level.

Under OBRA 90, HCFA is responsible for publishing a Unique Physician Identification Numbers (UPIN) Directory on an annual basis. The next submission will include the addition of residents and interns and further additions are anticipated during the planning period. Broad use of the UPIN will allow much more effective tracking of physician practice and ordering practices and supports the OBRA 89 physician ownership provision. Another project supporting this provision is the Physician Ownership and Compensation Interest (POCI) project which reports physician ownership/investment and compensation arrangements between physicians and their families with selected health care entities. CLIA 88 also mandated physician ownership provisions. For it, HCFA will produce an annual report to link physician sanction data to ownership information and identify detail and summary physician sanction activities.

05 COLLECT AND ANALYZE INFORMATION ABOUT FACILITIES THAT PROVIDE MEDICARE AND MEDICAID SERVICES

HCFA annually updates and republishes payment directives for:

- inpatient hospitals through the Prospective Payment System (PPS);
- home health agency cost limits;
- hospice payment caps;
- ambulatory surgical center payment rates;

- o Health Maintenance Organizations (HMOs) and Competitive Medical Plans (CMPs) through the Adjusted Annual Per Capita Cost; and

- o laboratory fee schedules.

The Satellite Teleconferencing for State Survey Training is an effort to improve the quality of State provider surveys. This effort will provide live, real-time training across the spectrum of providers and suppliers and faster and more consistent communication to States and regional offices on the interpretation and application of regulations.

For the past 5 years, HCFA has published the Medicare Hospital Information Report. The Report shows individual hospital mortality rates following admission after adjusting for patient characteristics. HCFA is studying the benefits of producing this report as well as of providing additional quality of care indicators in future reports, including:

- o re-hospitalizations;

- o accreditation and certification data; and,

- o volume.

HCFA's survey and certification responsibilities extend beyond inpatient hospitals, and recent legislation has expanded those responsibilities and the information needed to support them (e.g., CLIA 88 and OBRA 87).

Some of the new data collection efforts that HCFA is pursuing to support these functions are:

- o information about all laboratories that test human specimens for diagnosis, or prevention of disease, including the State agency Survey findings;

- o information on user charges and certificate issuances;

- o Facility Proficiency Testing (PT) data;

- o PT data for Cytologists and Pathologists;

- o information about State and non-profit proficiency testing organizations;

- o Facility Records from Deemed Home Health Agency Accreditation Organizations and deemed CLIA Accreditation Organizations;
- o Skilled Nursing Facilities (SNF) and Nursing Facilities (NF) Severity of Deficiency Data;
- o information on enforcement actions taken against facilities;
- o information on complaints lodged against facilities;
- o the possibility of a national database selected from the Nursing Home Minimum Data Set (MDS); and
- o Medicare Mammography Supplier Screening Data.

HCFA will develop systems to maintain and analyze these new data collections for both survey and certification administration and research, and for broader quality of care purposes. The Agency will also be enhancing current processes to improve the analysis of current data collections (e.g., linking the Measures data with the Online Data Input and Editing (ODIE) System) and support the collection of these new data (e.g., expansion of the Online Survey, Certification and Reporting (OSCAR) System to capture the mammography screening data). HCFA will establish interfaces to facilitate electronic data exchange with new external entities (e.g., PT Organizations, Accreditation Organizations, etc.).

In 1993, HCFA will begin a Medicare/Medicaid Nursing Home Case Mix and Quality demonstration using MDS, plus data on all Medicare Nursing home admissions in six States. The demonstration will generate a 1100 byte record for each of 170,000 beneficiaries in the demonstration area five times a year. Depending on the completion date of the national database selected from the Nursing Home MDS, this demonstration may be able to move to an arrangement with that collection effort.

To evaluate quality of Medicaid community-based long term care, HCFA will monitor the Home and Community-Based Services Waivers' (HCBSW) and tracking information on new and proposed waivers. HCFA may need to develop systems to collect waiver and quality of care data directly from States.

Annually, HCFA submits a legislative proposal on establishing a user fee financed Survey and Certification Program for all

50,000 plus Medicare and Medicaid providers and suppliers. Should the legislation be enacted, HCFA will need to develop a fee billing and collection system similar to that now being implemented for CLIA 88. All providers and suppliers would have to submit a registration and certificate fee; and upon receipt, HCFA would bill for and schedule a State survey. The system would track all billing and related survey and certifications activity. This system could build upon the CLIA system, and therefore would represent an approximate 25 percent incremental increase in the number of providers/ suppliers in that system.

O6 IMPROVE THE MEDICAID DRUG REBATE PROGRAM

OBRA 90 mandated that States apply Federal Upper Limits (FULs) for the Medicaid drug program. These FULs limit Medicaid drug reimbursement to generic drug prices. HCFA developed a system to calculate the FULs based on drug pricing data from three national compendia (Red Book, First Data Bank, and Medispan). The first FUL list was published in 1992 and will be updated semiannually.

There are currently numerous legislative proposals pending in Congress which, if passed, would require either adjustments to or a total redesign of the current Drug Rebate System.

S4 SUPPORT AHCPR EFFECTIVENESS INITIATIVES

O7 PROVIDE DATA AND ANALYTIC SUPPORT TO AHCPR

OBRA 89 established the Agency for Health Care Policy and Research (AHCPR) in the Public Health Service (PHS) charged with the responsibility for enhancing the quality and effectiveness of health care services through a broad base of scientific research. AHCPR will obtain or develop a large amount of health care cost, services, patient care, and patient outcome data. In addition, AHCPR will investigate and develop analytic techniques, maintain special purpose analytic data, and identify cost-effective medical treatment practices.

HCFA's program data contain the largest population, provider, and medical claims information in the United States. In 1990, AHCPR signed a Memorandum of Agreement (MOA) with HCFA for data support to the Patient Outcome Research Teams (PORT) established by AHCPR. AHCPR has renewed

this agreement annually, and HCFA assumes that AHCPR will continue to rely on this data support.

HCFA currently supports the following PORTs:

Johns Hopkins Hospital Study of Cataracts;
University of Washington Study of Lower Back Pain;
Harvard University Study of Acute Myocardial Infarction;
University of Maryland Study of Hip Fractures;
University of Indiana Study of Total Knee Replacements;
Dartmouth University Study of Prostatism;
University of Pennsylvania Study of Biliary Tract;
Duke University Study of Prevention of Strokes;
Duke University Study of Ischemic Heart Disease;
University of Pittsburgh Study of Pneumonia; and
Project HOPE Study of Practice Variations and Costs for Cancer.

AHCPR is also analyzing Medicaid Statistical Information System (MSIS) data to determine its usefulness for Pain Management research. The Department of Health and Human Services (DHHS) released initial guidelines for Post-Operative and Cancer Patients in March 1992.

PG3 ENHANCE THE EFFICIENT OPERATION OF MEDICARE AND MEDICAID

S5 IMPROVE THE OPERATIONS OF MEDICARE AGENTS

08 IMPROVE MEDICARE CONTRACTOR CLAIMS PROCESSING

HCFA plans to reduce processing costs and promote contractor conformity through several major initiatives that either the individual Medicare contractors or the CWF host sites will implement.

Electronic Claims Processing Environment

Medicare leads the health insurance industry in electronic data interchange -- currently our intermediaries and carriers combined receive about half of our 600 million annual claims volume in electronic form. One of HCFA's long-term goals is

an all-electronic environment for Medicare claims. Some of the near term efforts to achieve that goal are:

- By the end of FY 1992 all standard systems will have the capability to initiate and control electronic funds transfer (EFT) for claims payment. EFT, electronic media claims (EMC), and electronic remittance advice (ERA), significantly reduce administrative costs and enhance systems reliability and control.

- During FY 1991, HCFA established a Medicare standard electronic remittance advice for carriers and will establish an American National Standards Institute (ANSI) remittance advice for intermediaries during FY 1992. An ANSI advice will simplify and promote automated posting by health care providers because the intermediaries will be receiving one format from all payers.

By the year 2000 the Medicare contractors will foster the establishment of low cost computing hardware, software and telecommunications to:

- Receive virtually all claims in EMC format;

- With few exceptions, pay claims by means of EFT;

- Inform providers of service of our claims payment determinations through ERA;

- Adjust claims electronically, based on electronic receipts;

- Under controlled conditions, permit providers to query intermediary or carrier databases to determine beneficiary eligibility; and,

- Migrate from Medicare to insurance-industry-wide standard formats for most high-volume electronic messages (for example, carrier and intermediary electronic claims and remittance advice).

Imaging and Optical Character Recognition (OCR)

For several years, HCFA has been exploring the cost effectiveness of OCR in Medicare contractor operations. The use of OCR reduces claims processing costs because it obviates the need for key punching data from the claims form.

Use of Audio Response Units (ARUs) to Process Provider and Beneficiary Inquiries

Medicare contractors use ARUs and question specific scripts to process routine inquiries about Medicare and claims in process. HCFA will expand the Medicare Shared System contractors' use of ARUs for handling inquiries from providers about claims and payment amounts. At the same time HCFA will encourage the use of EMC by providers to inquire about claims and claims payment.

HCFA will also expand the use of ARUs to respond to beneficiary inquiries to request duplicate Explanations of Medicare Benefits, Medicare Participating Physician/Supplier Directories, the Medicare Handbook, and status of claims. Information campaigns will encourage beneficiaries to use the service in lieu of contacting a service representative or writing to the contractor.

National CWF Maintenance (CWFM) Contractor

HCFA is currently conducting a full and open competition to select a CWFM contractor to serve from October 1992 through September 1993 with 4 optional extension periods. The successful contractor will provide software maintenance and development for the CWF system and support the 9 host sites performing the following broadly defined services:

- Enhance, maintain, test, and release all CWF software and software documentation to CWF Host Sites, and Host/Satellites interfacing CWF software modules;

- Provide technical assistance to HCFA and the Hosts in the administration and efficient operation of the CWF system, including research and analyses of advances in hardware/software technology and their applicability to CWFM resolution of operational problems, and training on new technology and CWF functionality;

- Participate with HCFA and CWF Hosts in scheduled national meetings and periodic teleconference calls to keep all parties current on the state of CWF development, testing, and releases;

- Provide associated resources in support of CWF System requirements at the maintenance facility; and,

- Design, develop, and install special project requirements for the CWF System as HCFA direct during the term of the contract.

O9 IMPROVE THE PREMIUM COLLECTION PROCESS

During the next several years, HCFA will explore the option of collecting premiums directly from the checking or savings accounts of beneficiaries who currently mail their premiums to the "Lock Box" contractor. This approach has a number of benefits. The primary benefit is a cost savings. Earlier analysis showed potential for a savings of over $1 per bill per quarter for the 600,000 beneficiaries who pay premiums directly or approximately $2.5 million per year. The Government would also be able to start collecting interest on the premiums immediately. On the productivity side, this process would reduce exceptions and eliminate duplicate billing for those beneficiaries who elected this payment option. Prior to the Project to Redesign Information Systems Management (PRISM), there were too many inconsistencies with the premium collection database and processes to pursue this concept. With the integration of the Enrollment and Premium databases in FY 1993, the approach will become feasible.

In 1992, the Department sent a legislative proposal to the Speaker of the House of Representatives on setting premiums based on income. Should it be enacted, HCFA will need to match enrollment and IRS records to select beneficiaries with incomes exceeding $100,000. HCFA will bill those individuals for a higher premium. The need to coordinate with SSA, IRS, and taxpayers/beneficiaries make this an extremely complex implementation effort.

S6 IMPROVE MEDICARE CONTRACTOR MONITORING

O10 IMPROVE PAYMENT QUALITY REVIEW

MSP

Intermediaries and carriers have responsibility for administering the Medicare Secondary Payer (MSP) provisions of the Social Security Act. HCFA also plans to develop its own systems, however, to provide further support and monitor their efforts. These plans include support for:

- The Initial Enrollment Questionnaire (IEQ) which will provide a single source for collecting information on Medicare Secondary Payer from enrolling beneficiaries.

- Data matches with other Federal agencies (beyond the current SSA/IRS one mandated by OBRA 89) including:

  - VA;
  - the Department of Labor (DOL) Black Lung Program;
  - Office of Personnel Management (OPM);
  - United States Postal Service; and
  - Department of Defense Civilian Health and Medical Program of Uniformed Services and Civilian Health and Medical Program of the VA.

- Systems to take data submitted by the IRS/SSA/HCFA Data Match contractor and determine potential mistaken payment situations and track their recovery.

- Systems to use CWF MSP information to monitor contractor performance with respect to MSP performance.

- Developing litigation and spousal databases for MSP litigation.

- The development of an Other Payer Registry to contain records on all payers each with its own unique payer identifier.

In the Part A area, HCFA will assure proper provider payments through several efforts.

- analysis of NCH data to verify that providers are keying the proper codes (e.g., the HCFA Common Procedure Coding System) and are completing other portions of the bills necessary for pricing (e.g., rate and professional component);

- updating of the callable pricing modules provided to Intermediaries to be consistent with annual Prospective Payment System (PPS) changes; and,

- developing trends from NCH data to direct the medical review functions of Medicare intermediaries.

In the Part B area, HCFA will assist the carriers in their medical review function by helping them to refine their claims screening modules and by providing NCH data to them. The current schedule for providing these data is:

- FY 1994-1998 -- provide tabulations on all claims related to durable medical equipment, prosthetics, orthotics, and supplies (DME/POS) to the DME/POS regional carrier on a monthly basis.

- FY 1995 -- provide tabulations by provider (650,000 providers) and an interactive patient history database with 5 years of claims data for fraud and abuse analysis to all carriers.

- FY 1996 -- provide tabulations by beneficiary grouping.

O11 IMPROVE CONTRACTOR MANAGEMENT

HCFA is developing and enhancing a number of systems that identify ways to reduce administrative costs by monitoring the cost effectiveness of Medicare contractors. Enhancements to the following systems will help HCFA identify contractor problem areas and target potential improvements:

- Contractor Reporting of Operational & Workload Data;
- Contractor Administrative-Budget and Financial Management;
- Contractor Audit and Settlement Report;
- Small and Disadvantaged Business;
- Carrier Systems Testing Project;
- Intermediary Systems Testing Project;
- Functional Quality Assurance (QA);
- CWF QA;
- Part B Quality Assurance;
- Part B Medicare Claims Audit;
- Provider Overpayment Recovery System; and
- Physician/Supplier Overpayment Recovery System.

Many of the systems listed above currently contain different contractor identifiers which preclude comparing data on contractors across systems. To correct this problem, HCFA will develop a system to maintain and cross refer contractor identifiers and related information. The identifier project would also support the requirement of the Chief Financial Officers Act to prepare financial statements for Medicare contractors. The required financial data reside in several of

the current systems. Having the ability to link the data will simplify the creation of these statements.

Two new initiatives in this area are to conduct annual Medicare carrier performance surveys of physicians and beneficiaries. Beginning in FY 1994, HCFA would survey 500 physicians and 25,000 beneficiaries per State. This would give both groups the opportunity to evaluate their experiences with carriers and provide suggestions for where the carriers might improve their operations. HCFA could use the survey results to work with carriers to resolve problems or to revise programmatic or evaluative manuals.

A national Medicare supplier database will simplify supplier reenrollment.

Acquisition of Independent Verification and Validation (IV&V) Services for CWFM Contract

CWF provides automated authorization and validation of claims prior to payment being made. HCFA plans to acquire an IV&V contractor to bring an unbiased view to the verification and validation process, to develop an in-depth plan to examine all technical aspects of the CWF maintenance process, and to monitor CWFM contractor performance and deliverables.

The IV&V initiative has two distinct phases.

Phase 1 involves:

- Developing written guidelines and procedures for performing CWFM contractor evaluation; and,

- Monitoring and evaluating the transition process from the current CWFM contract into the new CWFM contract which will be administered under IRM guidelines.

HCFA has the option to initiate Phase 2 at the completion of Phase 1. It would include the following:

- Evaluating CWFM contractor performance by examining all CWFM products, including technical deliverables provided to HCFA and the administrative practices and procedures used by the CWFM contractor in administering the CWFM contract;

- o Providing written evaluation to HCFA of all CWFM products from ADP "technical" and Medicare "program" standpoints; and,

- o Recommending improvements and/or modifications to CWFM products and/or procedures.

MEDIGAP

The Social Security Act requires States to provide lists of approved Medigap policies. OBRA 90 further requires them to report on their enforcement of the Medigap program through the report of loss ratio data, consumer protection information, and their actions to monitor insurer compliance (e.g., how States handled beneficiary complaints and premium safeguards). Both HCFA and the National Association of Insurance Commissioners (NAIC) need the following Medigap data from each State's insurance commissioner:

- number of beneficiary complaints;
- loss ratio data;
- Medigap policy information that carriers use to review crossover claims; and
- Medigap premium data.

Current plans call for the States to report these data to both HCFA and the NAIC beginning in January 1993. The next step is to establish an electronic link between the States, HCFA, and the NAIC and eliminate the need for the States to produce data for two separate entities.

APPEALS AND DISPUTES

HCFA has proposed delegating responsibility for all HMO, CMP, PRO, carrier, and intermediary decisions involving claims or bill payments to one organization. The Agency may also propose establishing a significantly scaled-down process (similar to the Provider Reimbursement Review Board) for resolving disputes in cases where an appeal focuses on HCFA policy. If either proposal is accepted, HCFA will develop a database of disputes and appeals decisions, including those made by Administrative Law Judges, with systems to analyze the data.

S7 IMPROVE MEDICAID ADMINISTRATION

If the President's Health Reform Program is passed, the need for State management information will expand. As the Administration and legislators study various alternatives, there will also be increased demand on the Medicaid information on hand to support the studies.

O12 RESTRUCTURE THE MEDICAID ELIGIBILITY QUALITY CONTROL (MEQC) PROGRAM

HCFA proposes transforming the MEQC program from a system of grant withholding/disallowance projections to a case by case system with increased emphasis on corrective analysis.

O13 IMPROVE THE STATE PLAN PROCESS

The Medicaid Budget Estimating Initiative responds to a need identified by a joint DHHS/OMB task force. Its report focuses on the wide variance between estimated and actual increases in the costs of the Medicaid program. The Initiative will improve the quality and consistency of future estimates. One focus of the initiative is to provide current, up-to-date information on State Plans to support Medicaid program management activities. HCFA has developed a database containing data extracted from State Plans and State Plan Amendments (SPAs) to facilitate monitoring and allow cross-state comparisons of program characteristics. This system will be expanded to include additional critical data (including coordinated care) and to improve analytic functions.

Another effort will facilitate management decisions in the SPA approval process. This effort focuses on automation of the SPA approval process with increased productivity and access to information.

O14 IMPLEMENT A NATIONAL MEDICAID DATABASE

One of the recommendations of the DHHS/OMB Task Force on improving Medicaid budget estimating procedures called on HCFA to improve the quality and comprehensiveness of its Medicaid statistical data. Since August 1991, three Joint Application Development sessions explored ways to satisfy the task force recommendation. What has emerged is a clear understanding of the various functions (research, actuarial projections, policy analysis, legislative impact analysis) that rely on these data and several options as to how to proceed. HCFA is considering a National Medicaid Database containing 100 percent of the claims and eligibility records for each

Medicaid agency. This project would expand the number of States participating in the Medicaid Statistical Information System (MSIS) (there are currently 25) and expand the level of data currently collected in MSIS.

HCFA must examine the need to establish linkages between a Medicaid claims database, the Enrollment Database, and the Medicare National Claims History database.

PG4 ENCOURAGE THE SHIFT AWAY FROM FEE-FOR-SERVICE AND TOWARD COORDINATED CARE ARRANGEMENTS

S8 IMPROVE BENEFICIARY SATISFACTION WITH COORDINATED CARE ARRANGEMENTS

015 CONDUCT COORDINATED CARE STUDIES AND SURVEYS

PROs will begin sampling Coordinated Care data on approximately 300 beneficiaries per Health Maintenance Organization (HMO). The Death Pattern Report might provide data to determine where they should target certain Coordinated Care plans to provide additional data.

HCFA proposes generating a notification of disenrollment with a questionnaire to determine what factors led the beneficiary to disenroll in order to identify and correct coordinated care problems.

Two coordinated care research contracts that HCFA expects to award are to 1) develop coordinated care service delivery models, and 2) study coordinated care payment systems. The contractors are expected to use HCFA data and facilities for these studies.

O16 IMPLEMENT PROPOSALS TO INCREASE THE APPEAL OF COORDINATED CARE

HCFA has several proposals to make coordinated care more attractive to Medicare beneficiaries that would require changes to current systems, including:

- Providing SSA District Offices online access to coordinated care enrollment data and health benefit information (in a format similar to the Federal health benefits brochure) and

- Generating a Coordinated Care risk sticker for placement on the HI card.

HCFA has submitted two legislative proposals designed to increase beneficiary coordinated care participation.

- *One would provide an incentive, through a cash premium rebate program, for beneficiaries to join risk coordinated care organizations. If the proposal becomes law, HCFA will collect data and develop the systems needed to implement and monitor the rebate program.*

- *The second would implement a working aged rate cell for risk contracting organizations which would require systems to calculate the rate, report on it, and monitor its implementation.*

S9 IMPROVE ADMINISTRATION OF COORDINATED CARE PROGRAMS

O17 SHARE COORDINATED CARE DATA WITH STATES

HCFA has proposed providing Medicare HMO enrollment tapes to State Medicaid agencies. States would use this information to coordinate care for dual eligibles and to ensure that individuals do not enroll in two plans.

HCFA also proposes collecting coordinated care data from States. Under the current proposal, HCFA would collect and analyze encounter data for individuals enrolled in Medicaid coordinated care plans. The proposed national MSIS would also support this initiative.

O18 IMPROVE COORDINATED CARE ADMINISTRATION

HCFA proposes automating several review processes through the use of lap top personal computers (PCs), including:

- o Certification of organizations for Title XIII of the PHS Act and service area expansion (annually, HCFA receives an average of 4 new applications and 15 requests for service area expansions) and

- o Oversight of the contract application and renewal process (annually, HCFA projects an average of 12 new contracts and 12 contract expansions).

The cost report desk-review and audit process is currently paper-based but in FY 1993, HMO Plans can begin submitting reports on magnetic media. By FY 1994, HCFA auditors will begin accessing the data electronically. HCFA projects that the current number of cost contracting organizations (77) will increase 25 percent.

HCFA also proposes upgrading another paper-based submission to an electronic one -- the National Data Report Requirement (NDRR) which provides HMO financial data.

HCFA is developing an automated system to improve the review and approval process of the Adjusted Community Rate (ACR) for risk based HMO Plans. HCFA projects that the current number of risk contracting organizations (89) will increase 38 percent.

An outside contractor currently manages HMO and CMP beneficiary reconsideration. Their tracking function is expected to expand to include Health Care Prepayment Plan (HCPP) beneficiaries reconsiderations which is expected to increase the current volume of 2,400 reconsiderations by 60 percent.

HCFA will undertake a number of other efforts to enhance current systems, including:

- o migration of the batch enrollment and payment processes to an online process;
- o RO access to coordinated care databases;
- o development of validation and verification processes to ensure the accuracy of coordinated care databases; and
- o integration of the system with tools to improve user access.

SECTION C
IRM VISION, GOALS, AND STRATEGIES

I. HCFA IRM VISION

HCFA's model for providing information services will 1) manage the Agency's vast volume of data; 2) provide ease of use for the user; and 3) leverage the benefits of technology advancement to contain cost and improve employee productivity. In this model, each application has three components. The presentation component interfaces with the user (capturing input and presenting output), the processing component deals with the manipulation of data, and a data server manages the database and all accesses to it.

Employees will be "networked" to the Agency's computers and have transparent access to the universe of databases, "empowering" them to utilize this information in an effective, efficient and facile manner. This architecture provides seamless computing utility, allowing data processing to be done on the hardware and software platforms most appropriate for the application.

HCFA will provide access to electronic versions of data via desktop PC in stand alone mode or through other platforms (LANS/minis/mainframe). Systems developers will have essential facilities at their disposal such as programmer workbench where they pick/choose the proper "tools" and match them with the system lifecycle being worked on. Each "tool", while separate, will work in an integral fashion through a central repository. HCFA employees will have access to these tools on a requirements basis. However any HCFA employee can be provided with any capability as needed.

With the consolidations of HCFA central office components into a single facility, HCFA will establish processing and communications abilities that are compatible with current needs and can be expanded as programs and technology change.

The Agency has established a rigorous program to maintain an adequate workforce. As the current workforce "grays" and retires, the Agency recruits and trains capable replacements to continue support for current and future missions and to oversee contractors.

As new programmatic requirements and technological advancements occur, HCFA acquires the resources needed to support its mission.

HCFA's databases will become a rich source of information for both internal analysis and by a large external user community.

II. HCFA IRM GOALS AND STRATEGIES

IRM GOALS

VISION	GOAL	STRATEGY
Maximize the return on the investment in PRISM	IG1 Use technology to enable employees to perform their job more effectively	S1 Information Systems Empowerment Strategy
		S2 Evaluate Future DBMS Needs
Single site	IG2 Establish effective infrastructure and maintain continuity of services at the new single site facility	S3 Acquire Bridge CPU Capability
		S4 Provide LAN topology
		S5 Develop single site administrative systems
IRM Expertise	IG3 Ensure that HCFA continues to have adequate IRM staffing or contractor support	S6 Recruit and train HCFA staff
		S7 Acquire software development contractor support
ADP capacities consistent with Agency's needs	IG4 Ensure that adequate ADP capacities are available to support growth and development in HCFA's programmatic mandates and new information processing demand and initiatives	S8 Maximize use of existing ADP facilities
		S9 Strengthen the capacity management and planning function
		S10 Acquire additional ADP capacity as needed
HCFA databases are a rich source of information for a large external user community	IG5 Provide HCFA data to external users	S11 Provide data to AHCPR, SSA, VA, CHAMPUS, etc.

IG1 USE TECHNOLOGY TO ENABLE EMPLOYEES TO PERFORM THEIR JOBS MORE EFFECTIVELY

S1 INFORMATION SYSTEMS EMPOWERMENT STRATEGY

One of the primary goals of the PRISM effort has been to provide HCFA staff with the ability to solve policy and management problems using information that was not previously available to them in a useful timeframe. As such, HCFA employees will now need to be empowered to access this information to perform their jobs in an effective, efficient, and timely manner.

The Information Systems Empowerment Strategy will maximize the return on the investment in PRISM by expanding the understanding of the database environment, improving users' ability to access the databases, bringing tools and data together at the desktop, and implementing new technology required to expand on office information systems capabilities where a positive payback is predicted. HCFA's LAN strategy, described with the Single Site initiatives, will affect the staging of the elements in this initiative that are dependent on local connectivity. This initiative is a multi-faceted endeavor that provides functionality through the integration of a variety of technologies. The following initiatives will empower HCFA's user community through:

- simplified, improved access to HCFA databases;
- ability to share data and applications across platforms;
- access specialized technology;
- ability to access and share text and imaged databases;
- ability to mail/receive notes and documents; and,
- ability to develop mainframe software at the PC.

1. Simplified, Improved Access to HCFA Databases

Currently, the user's understanding of certain data processing concepts determines his/her ability to access decision support data. Concepts such as processing platforms, file names, and applications and job control programming languages can present a major stumbling block to the non-DP professional. There are two strategies for addressing these concerns. The first is to train the non-ADP users about HCFA databases and ways to access them. The second is to acquire packaged and customized software tools that will improve their ability to access the databases and to interpret the data. The list below identifies some of this software:

- packaged tools with English-like commands, e.g., 4GL, such as FOCUS;
- presentation and graphics tools; and
- access summary information in graphic form, e.g., Enterprise Information Systems (EIS).

The Regulation Publishing function is one of many areas in HCFA that this effort will enhance. Each new regulation has an impact analysis attached. These impact statements must:

- o identify the number of affected entities or individuals (selected on the basis of a criterion derived from the regulation being prepared);
- o determine the amount of the impact (in terms of increased costs, payments, utilization, etc.);
- o determine any differential impacts by category of entity or geographic location;
- o identify secondary effects on access or costs of doing business;
- o identify primary and secondary benefits to entities or individuals; and,
- o determine the impact on small rural hospitals.

HCFA often has about 2 weeks to complete these analyses so speed and ease of use is imperative. The regulations staff must identify applicable databases and extract subsets from the databases using a variety of criteria (e.g., geographic location, utilization, cost, provider type, etc.).

This effort is aimed at HCFA executives, managers, analysts, and the research community.

2. **Ability to Share Data and Applications across Platforms**

At this time, a substantial number of HCFA PC users operate in a stand-alone mode, relying on copying to and/or sharing of diskettes when information is needed among staff members. This initiative will allow:

- o distributed data entry to increase accuracy and timeliness;
- o users to share data and applications at the local level;
- o users to access data and applications regardless of their physical location;
- o components supporting HCFA-wide packaged (e.g., wordprocessing) and customized (e.g., time and attendance) applications to distribute them electronically; and,
- o distribution of large data files for local use through CD-ROM technology.

This effort is aimed at all HCFA users with distribution gradually phased in over 5 years.

3. **Access to Specialized Technology**

As PC users become more knowledgeable, they require more complex hardware and software. Section one (above) outlines some of the new products that managers and analysts should have to improve their access to the Agency's subject matter databases. A limited number of HCFA's users, however, have the need for more powerful technology. HCFA would also establish a "model office" to test ideas and configurations of hardware and software. The following type of products are projected for a limited number of "power users" and to establish a "model office:"

- o improved DBMS, spreadsheet, and wordprocessing products;
- o multitasking capabilities;
- o Windows-like graphic user interfaces;

- o desk top publishing and presentation software products;
- o high-powered workstations;
- o a variety of storage devices (e.g., DAT-based image storage "jukebox," and WORM devices); and
- o color printers.

Through the "Model Office," all HCFA components could have access to this type of specialized hardware and software, on an as-needed basis.

This effort is aimed at a limited number of analysts.

4. **Ability to Access and Share Text and Image Databases**

HCFA's policy making and program oversight responsibilities generate a large volume of paperwork, including

- manuals;
- laws;
- regulations;
- policy decisions;
- speeches;
- administrative guidelines; etc.

HCFA also maintains large volumes of paperwork created by external organizations (e.g., correspondence, health related policies and periodicals, contractor documentation, etc.). Technologies such as Imaging and Facsimile (Fax) can efficiently and economically manage and provide electronic access to such external documents.

Electronic text (for internal documents) and image (for external documents or graphic or form type data in internal documents) databases can maintain these documents, insure integrity, and provide reasonable access. The larger databases would reside on CD-ROM, write once read many (WORM), and other mass storage devices which provide search and retrieval capabilities.

Just as analysts and managers need access to the subject matter databases across computing platforms, all HCFA users need to transfer documents to/from/through a host server and disseminate them to appropriate HCFA components/agents.

Additionally, it will be possible to download text files from a host system to PC-based software, such as Word Perfect.

This effort is aimed at all HCFA users.

5. **Ability to Mail/Receive Notes and Documents**

IBM's Professional Office System (PROFS) supports HCFA's current E-mail system on the 9370 minicomputer. The system provides such features as the ability to send and receive notes, the transmission of PC-based files and documents, calendaring, telephone directories, etc. There are approximately 2,000 users in both central office and the ten regional offices.

HCFA will re-evaluate this E-mail configuration for several reasons, including:

- o HCFA identified the original requirements in 1985;
- o both PROFS and the IBM 9370 have been withdrawn from IBM as "active" products;
- o HCFA is preparing to move to a single site within the next several years;
- o the current End User Computing (EUC) contract is expiring in 1994; and,
- o Local Area Network (LAN) technology has matured and is now a viable alternative.

HCFA's E-mail strategy is to follow the systems development life cycle to determine what system will satisfy the needs of the Agency including enabling the central and regional offices to communicate with Medicare contractors, State agencies, and other agents.

This effort currently is aimed at executives, managers, and secretaries in the central office and all employees in the regional offices.

6. **Ability to Develop and Test Mainframe Software at the PC**

This initiative supports HCFA's data processing professionals by moving software development from the mainframe to the microcomputer. The programmer's workbench project will realize the following benefits:

- Mainframe millions of instructions per second (MIPS) will be saved, delaying the necessity of processor upgrade;
- Programmer productivity will increase as the programmer gets instant feedback on compiles and tests; and,
- The quality of software will increase as it is tested more thoroughly and efficiently prior to the release to the user.

Initially, this project will use software products such as PC Cobol, PC SAS, etc.

This effort will help make cost effective use of HCFA's resources by distributing this type of work to a less expensive platform. At this time, a MIP of microcomputing resources costs about 10 times less than a mainframe MIP.

This effort is aimed at programmers and covers approximately 5% of the HCFA population.

S2 EVALUATE FUTURE DBMS NEEDS

After several separate studies, HCFA selected Model 204 (M204) to be the Database Management System (DBMS) to support the PRISM databases, including:

- the Enrollment Database (EDB);
- the National Claims History (NCH); and
- many of the contractor and provider databases.

IDMS/R supports HCFA's accounting systems.

It has been 3 years since HCFA's last comprehensive review of the DBMS environment in the data processing industry. During that time, the industry has released new DBMS packages, upgraded existing products, and developed software tools that expand on DBMS functionality.

The addition of large new databases such as the Uniform Clinical Data Set (UCDS), the proposal to implement the Information

Systems Empowerment Strategy, and the possibility of significant new health care legislation are leading to the conclusion that we should reevaluate the critical tools the Agency uses to capture and process data.

The proposed review should be accomplished in two phases. The first should determine:

- what type of DBMS (i.e, relational, object-oriented, network, inverted list, etc.) would meet HCFA's programmatic needs and be compatible with HCFA's hardware/software platform;
- what other DBMS-related tools would enhance HCFA's functional capabilities;
- what commercial DBMSs or other software products are available to support these functions; and,
- provide a plan for testing and benchmarking the identified products.

The second part of the review should be the testing and benchmarking of the identified products. The two could be accomplished in 9 months.

IG 2 ESTABLISH EFFECTIVE INFRASTRUCTURE AND MAINTAIN CONTINUITY OF SERVICES AT THE NEW SINGLE SITE FACILITY

S3 ACQUIRE BRIDGE PROCESSING CAPABILITY

HCFA is evaluating alternative scenarios to accomplish the migration to the single site. At this point in time, the preferred strategy for the HDC is to use a bridge CPU for that move. The Agency is comparing different acquisition strategies for that CPU to determine the one that will be most cost effective. The acquisition decision will be consistent with the overall capacity analysis for HCFA's programmatic support requirements over the planning period, and

will be consistent with the effects of the client/server architecture and use of workbench strategies to offload workload from the mainframe.

S4 PROVIDE FULL-CONNECTIVITY THROUGH LAN TOPOLOGIES

Single Site Voice and Data Communications Switch

The switch will handle voice and data communications service in HCFA's planned general open-office facility. There will be approximately 3,300 workstations each equipped with at least one voice and one data connection. An optical fiber backbone for data use will support the Fiber and Distributed Data Interface (FDDI) standard and will run at 100 million bytes per second (mbps) using a dual counter-rotating ring architecture. Dual Attach Devices will connect the FDDI dual counter-rotating ring and the departmental LANs on each floor. Spare fibers will be supplied for repair and upgrade. For voice, a sufficient number of active and spare cable pairs will run from the switch room to and between the wire closets. The switch acquisition is scheduled for FY 1993-1994. The architecture will allow for planned growth without major alterations to equipment and impact to service.

LAN Topology

During FY 1994-1995, HCFA plans to build a LAN topology. Peripheral equipment and PCs will be connected using the optical fiber backbone, backbone Dual Attach Devices, and twisted pair copper wire that will be installed for the switch at the Single Site facility. The procurement will include:

- LAN hardware;
- LAN management software; and,
- Network Operating Software.

Initially HCFA will connect only those components having LAN capabilities at the time of the move (projected at approximately 30 percent of the total HCFA population). As justified, HCFA will migrate other components from the old hard-wired controller and dial-in technology to the new LAN technology. Approximately 14 backbone nodes (with 14 redundant nodes for backup) will connect approximately 140 organizational LANs to the backbone. Initial

connection will be to the HDC or to other systems using gateways and communications servers. After the move, HCFA will evaluate the acquisition of file servers, facsimile servers, print servers, and LAN-based applications software, e.g., spreadsheets and wordprocessing that may be needed in full-service LANs.

S5 DEVELOP SINGLE SITE SYSTEMS

HCFA's move to a single site will require additional management systems in the functional areas currently supported by the Social Security Administration (SSA)

- o automated supply store,
- o library,
- o parking,
- o guard management, and
- o facilities management.

IG3 ENSURE THAT HCFA CONTINUES TO HAVE ADEQUATE IRM STAFFING AND CONTRACTOR SUPPORT

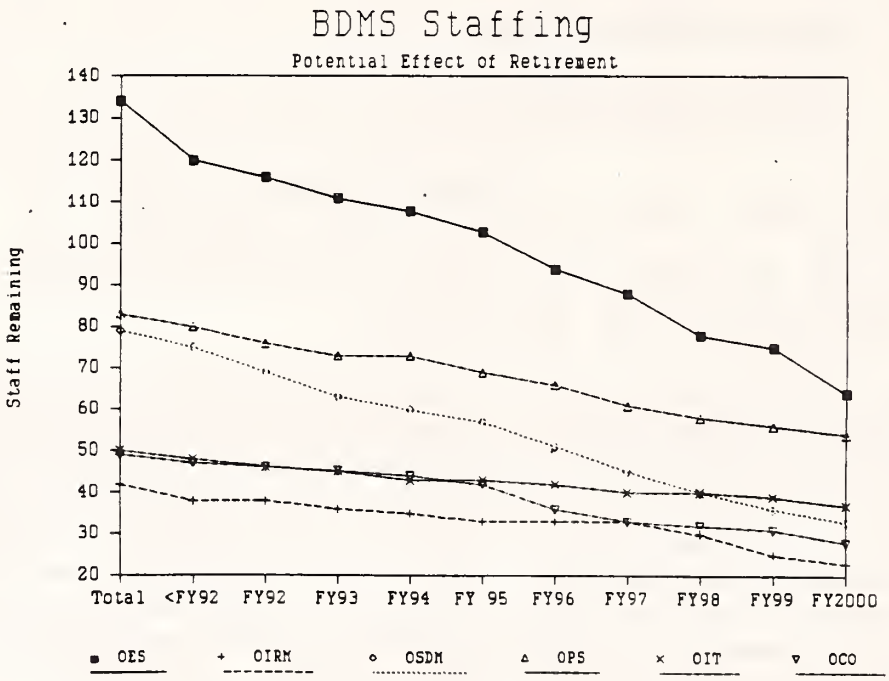
The number and complexity of resources under HCFA control and the breadth of the Agency's responsibilities have grown considerably over the past few years. To keep pace with this growth, the Agency is improving its planning methodology by developing accurate, timely information about resource utilization and projections. An integrated planning project task force is addressing this need and developing improved planning processes and systems. One outcome is the establishment of a rigorous analysis process of current resource use and the resources needed to implement each new programmatic requirement.

As HCFA program components submit new requests for support, each one is sized to determine what type of resources are needed, how many, and over what time period. These needs are mapped against the resources on hand or what is projected based on current acquisition strategies or other known factors.

For this planning period, the analysis has highlighted potential problems in two resource areas: 1) software development support and 2) hardware capacity.

S6 DEVELOP RECRUITMENT AND TRAINING STRATEGIES

To provide a perspective on HCFA's ability to meet its mission needs over the next 8 years, we have examined the number and types of IRM employees who will be eligible to retire between 1992 and 2000. Currently the Bureau of Data Management and Strategy (BDMS) has a total staff of 461 employees; by the year 2000, 198 will have reached or surpassed retirement age. The following graph shows the number of employees that would remain in BDMS if each person retired as he or she reached retirement age during each year between 1992 and 2000.



In summary, the Bureau could loose up to 43% of its current workforce by the year 2000. A breakout of the above figures in terms of Supervisors, Analysts/Programmers, and clericals is as follows:

Supervisors	35
Analysts/Programmers	144
Clericals	19
TOTAL	198

Given the high proportion of staff who will be eligible for retirement in the next few years, it is essential that HCFA develop a plan to enhance its IRM capability and expertise over time. Such a plan is necessary to provide the resources required to administer and operate workloads associated with anticipated legislation that will increase in both scope and complexity. To effectively deal with the many issues that must be faced, including current and prospective workload demands and requirements for strengthening the workforce potential, HCFA must provide the training necessary to ensure that current and future employees acquire and maintain a state-of-the-art awareness of IRM technology.

S7 ACQUIRE SOFTWARE DEVELOPMENT CONTRACTOR SUPPORT

While HCFA establishes an aggressive strategy to equip employees with the skills necessary to continue to maintain and develop the many systems required by the Agency, there will also be a continuing need to utilize outside programming services. The Agency faces many pressures:

- o to maintain and enhance current systems;
- o to develop the new systems identified in the Programmatic Plan;
- o to automate additional administrative functions;
- o to help the user population make effective use of the workstation tools; and,
- o to (possibly) support significant new health care reform legislation.

These factors make it imperative for HCFA to pursue a dual software development strategy that includes contractor support to augment government staff as necessary when workload peaks occur or for initiatives requiring specialized expertise.

IG4 ENSURE THAT HCFA MAINTAINS ADEQUATE ADP CAPACITIES TO MEET OPERATIONAL REQUIREMENTS FOR INFORMATION PROCESSING

S8 MAXIMIZE USE OF EXISTING ADP FACILITIES

HCFA manages its existing ADP facilities through service and performance management. The service management component:

- o identifies user service-level requirements (e.g., workload volume and response);
- o focuses on providing acceptable service to users on a daily basis; and,
- o defines meaningful and measurable performance factors.

The performance management component focuses on achieving performance efficiencies of both the applications and the hardware platforms on which they are running. When a potential efficiency improvement is identified, HCFA develops and implements plans to adjust either the application or the hardware. Regular measurement of applications and hardware utilization is also a feature of performance management.

S9 STRENGTHEN THE CAPACITY PLANNING FUNCTION WITHIN HCFA

A capacity management program controls, measures, and plans the system configuration required to meet current and future information processing requirements.

HCFA has established a capacity planning task force. This group is developing a baseline of utilization data by HCFA functional area, by project and projecting mainframe requirements for each current and

new application over the FY 1994-1998 time period. HCFA capacity planners met with representatives from each major user and IRM component to enlist their aid in identifying and projecting the requirements of their individual projects.

HCFA capacity planners will evaluate each request received from throughout HCFA in response to the FY 1994 IRM Planning Call. They will also factor in potential performance improvements of applications and hardware. These analyses will enable them to project hardware requirements over the next 5 years.

S10 ACQUIRE ADDITIONAL ADP CAPACITIES TIMELY AS REQUIREMENTS DEVELOP

Based on the analysis of HCFA capacity planners, the Agency may need to acquire some additional data center capacity prior to the move to the single site. Because of current site restrictions, HCFA would accomplish these upgrades by replacing lower capacity equipment with equipment of higher capacity and an equal or smaller "footprint" (e.g., replacement of single and double density DASD with triple density). On the other hand, the analysis may indicate no additional mainframe capacity is needed through the FY 1995 time period. In that case, the preferred move strategy would be to lease a bridge machine.

The planners will complete a preliminary analysis of the baseline and new programmatic needs in time for the FY 1994 IRM budget submission. The analysis will include projections through the FY 1998 time period taking into consideration the effect of opportunities to offload work to other processing platforms. Current expectations are that, at a minimum, a new processor and additional storage capacity should be acquired to handle increased workloads and support the move to the single site in FY 1994. These projections are based on:

- the historic growth of HDC utilization (over 40 percent per year);
- the industry growth standard (over 30 percent per year);
- increased information server requirements, i.e., statistical sampling and reporting;
- the implementation of new technologies; and,
- the large number of new applications and data files that HCFA is required to implement.

IG5 PROVIDE HCFA DATA TO EXTERNAL USERS

S11 PROVIDE DATA TO AHCPR, SSA, VA, CHAMPUS, ETC.

HCFA expects to provide an increasing amount of data to other Government agencies to support their related missions. Some examples of this support follow.

AHCPR EFFECTIVENESS INITIATIVES

This initiative is described in the programmatic section of the Plan because its goals are consistent with the HCQII.

SSA ACCESS TO BILLING AND COLLECTION MASTER

SSA has responsibility for approximately 15,000 direct update transactions per month to the Billing and Collection Master (BCM). The current tape/batch process mode contains no edits. HCFA has proposed having SSA program service centers (PSC) and field offices input the data through an edited online process. This approach would reduce the large number of backend exceptions and increase the accuracy of the updates. SSA field office users will access the HDC through their Data Communication Utility network and the HDC/NCC System Network Interface. This project is in pilot mode. HCFA and SSA will jointly develop a nationwide implementation strategy using "peer-to-peer" communications.

CENSUS BUREAU ACQUISITION OF MEDICARE ENROLLMENT DATA

The Census Bureau is creating the Administrative Records Information System with data from a number of Federal Agencies, including HCFA, for its year 2000 census.

HCFA MEDICARE REIMBURSEMENT RATES

To help control the cost of health care for Medicare beneficiaries, HCFA established payment levels for inpatient hospital care, home health care, DME, and physician services. Other government agencies and State Medicaid agencies are adopting these rates as a basis for their program payments. As HCFA adjusts these rates, the Agency supplies them to those organizations for use in their operations.

HCFA PUBLIC USE FILES

Major health care research organizations and universities purchase HCFA data to perform independent projects concerning the appropriateness of the nation's health care. For dissemination of much of this general purpose information to a wide audience, HCFA plans to provide it in electronic formats consistent with the direction outlined by the Government Printing Office in its long range plan.

III. MAJOR STRATEGIC ISSUES

There are two issues that could have a major effect on HCFA's IRM Plan:

1. The effect of potential legislation expanding HCFA's current functions such as health care reform. Even within the current Medicare program, there are proposals that require complex IRM support e.g., the pending legislation for variable premiums depending on income. Where possible, this plan identifies functional areas that would change and would require significant IRM support based on specific pending legislation. The plan does not attempt to address the full range of requirements of any single comprehensive health care bill.

2. The effect of the budget deficit on HCFA's future budget allocations.

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

Chapter III
HCFA Organization
IRM Environment and Resources

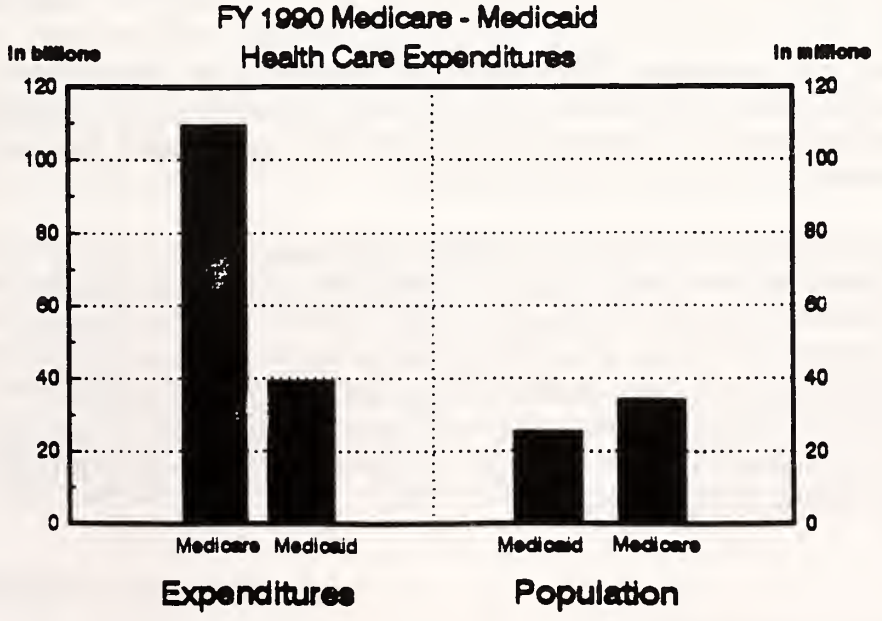
CHAPTER III
HCFA ORGANIZATION, IRM ENVIRONMENT, AND RESOURCES

SECTION A -- HCFA ORGANIZATION

I. MISSION STATEMENT

HCFA is the primary Federal agency responsible for administering the Medicare and Medicaid programs. It promotes the timely and economic delivery of appropriate quality health care to eligible beneficiaries, promotes beneficiary awareness of the services for which they are eligible, improves the access to those services, and promotes efficiency and quality within the total health care delivery system. To support these goals, HCFA oversees Medicare contractor and State agency operations, develops health care financing policy, and provides data and resources to support the Department's Medical Treatment Effectiveness Program (MEDTEP).

Medicare is the largest of the Federally-funded health insurance programs in the United States. Title XVIII of the Social Security Act, as amended, establishes the provisions of this program. Medicare has two separate parts. Hospital Insurance (Part A) covers inpatient hospital, skilled nursing facility, and home health agency care. Supplementary Medical Insurance (SMI) (Part B) covers physician, outpatient, and other medical services. In fiscal year 1990, HCFA provided coverage for about 34.2 million Medicare beneficiaries and paid about $109.6 billion for health care services. These expenditures are approximately 16.9 percent of the nation's total health care expenditures.



Medicaid is a joint Federal-State program that funds medical assistance for certain categories of low income people, including families with dependent children, and the aged, blind, and disabled. Title XIX of the Social Security Act, as amended, establishes the provisions of this program. Individual States operate the program under broad Federal guidelines. The Federal Government contributes a portion of the costs for State Medicaid operations and benefit payments. HCFA paid about $39.1 billion, as the Federal contribution, in fiscal year 1990 for Medicaid services to over 25.3 million recipients. These expenditures are approximately 10.3 percent of the nation's total health care expenditures.

HCFA administers Medicare and Medicaid through a variety of organizations:

- Medicare fiscal intermediaries pay institutional (e.g., hospitals) providers of health care services primarily under Hospital Insurance (HI), and perform related functions of fiscal audit. Each year intermediaries process about 95.1 million bills from approximately 32,000 providers.

- Medicare carriers administer SMI benefits, including payment of claims to physicians, other noninstitutional suppliers of health care services, and beneficiaries; conduct hearings where amount of payment at issue exceeds $100; and do related audit functions to promote the fiscal integrity of the SMI program. In FY 1990 carriers processed more than 453.9 million claims. About 373 million of these claims involved payment and are added annually to the National Claims History (NCH) file.

- Nine Common Working File (CWF) host sites manage a prepayment review and payment authorization process for the Medicare contractors. Contractors and hospitals have online inquiry capability to the CWF master file for problem resolution and beneficiary inquiry.

- Health Maintenance Organizations (HMOs) and Competitive Medical Plans (CMPs) administer prepaid Part A and Part B benefits, and Health Care Prepayment Plans (HCPPs) administer prepaid Part B services to Medicare beneficiaries.

- Peer Review Organizations (PRO) represent the primary Federal effort to monitor the quality of care provided to Medicare beneficiaries. Under contracts with HCFA, private PROs in each State review medical records to determine the necessity, appropriateness, and quality of inpatient hospital services. Reviews by PRO physicians may lead to remedial education, peer counseling, payment denial, and--as a last resort--the exclusion of a provider or practitioner from Medicare.

- State survey and certification programs ensure that institutions and agencies providing health care services to Medicare and Medicaid beneficiaries meet Federal standards for health quality and safety. The program initially covered only hospital inspections but now includes 9,807 Skilled Nursing Facilities and 5,893 certified Home Health Agencies. Further expansions will include Home and Community-based Care settings and clinical laboratories.

- Eighteen End Stage Renal Disease (ESRD) Network Organizations establish quality and medical care standards, evaluate ESRD facilities and providers, and collect and validate data necessary to support the Medicare ESRD System and the National ESRD Registry.

- State agencies operate the Medicaid program by determining eligibility of beneficiaries; by ensuring services are provided in the proper amount, duration, and scope; and by reimbursing the providers of services.

HCFA requires a variety of information to operate and manage the Medicare and Medicaid programs. To support day-to-day Medicare operations, HCFA collects information both on beneficiary eligibility from the Social Security Administration (SSA) and on provider participation and survey and certification from State survey agencies. Daily, HCFA supplies CWF sites information on beneficiaries. HCFA receives claims data on 100 percent of the Medicare population receiving services in the covered fee-for-service program. HCFA is receiving uniform clinical data on a sample of Medicare beneficiaries from PROs piloting this data collection activity.

In Medicaid, States unilaterally support day-to-day operations, except for certain linkages to Federal programs, e.g., "buy-in" interface with Medicare.

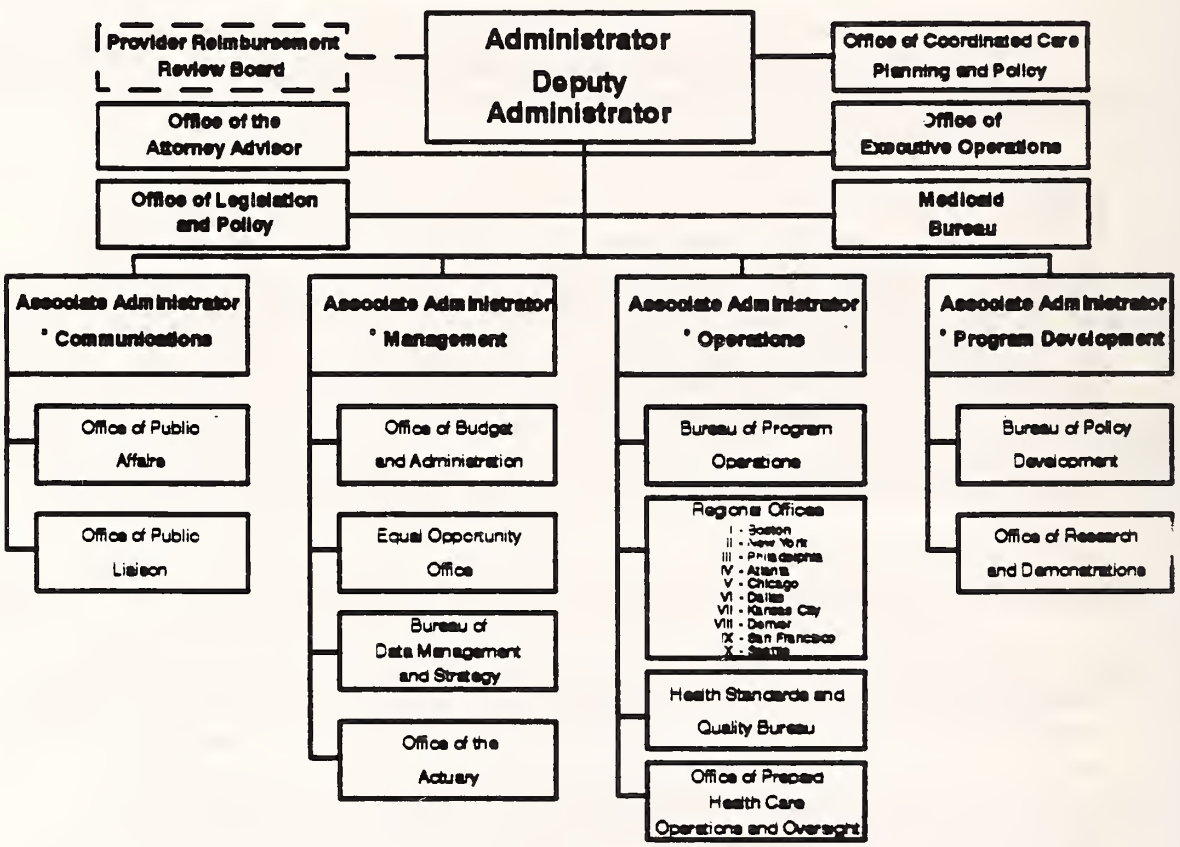
To control and monitor the activities of the program agents, HCFA has established various reporting systems that involve submission of budget, expenditure, and workload reports (monthly, quarterly, annually). These reports are combined with summaries of operating data for use in developing budgeting requirements, monitoring the performance of individual program agents, identifying trends in the operation of the Medicare and Medicaid programs, and developing recommendations for changes in program policy.

HCFA has major responsibilities for performing mandatory actuarial analyses and the annual computation of premiums and deductibles; for reporting trends in enrollment, utilization, and long-term costs; for conducting major research into alternatives to current payment and coverage provisions of Medicare and Medicaid; and administering an extramural research grants and demonstrations program to provide input to Congress and the Administration for use in health care policy formulation, for supporting the Agency for Health Care Policy and Research (AHCPR)

and the research community, and for developing and promulgating program regulations. To support these activities, HCFA relies extensively on Medicare enrollment, entitlement, utilization, provider, and contractor data captured at the 100 percent level. Depending on the application, HCFA may wholly use these data or may draw a statistical sample.

II. ORGANIZATIONAL STRUCTURE

Department of Health and Human Services
Health Care Financing Administration



HCFA has its headquarters in Baltimore, Maryland, and maintains field offices in each of the 10 Department of Health and Human Services (DHHS) regions. Its staff nationwide will number 4,277 with the addition of 100 FTEs to support the Clinical Laboratory Improvement Amendments of 1988 (CLIA 88).

The Office of the Administrator is responsible for the overall direction of the Agency's operations.

The Associate Administrator for Program Development is responsible for the effective direction and implementation of the development and review of Medicare policies and regulations and the direction of HCFA's research and demonstration activities.

The Associate Administrator for Management (AAM) is responsible for financial, personnel, contracts management, and project grant administration; the operation of the Agency's automated data processing and telecommunications facilities; maintaining computerized records supporting HCFA programs; administering an actuarial program; developing information plans and policies, maintaining a statistical data system to provide program data to the HCFA Administrator, Congress, and the public; and administering equal employment opportunity and civil rights programs.

The Associate Administrator for Communications (AAC) is responsible for conducting the Agency's public information activities. including providing information about the Agency and its programs to the news media, beneficiaries, and the public. The AAC is also responsible for liaison with health practitioners, institutional providers of health services, academic institutions, and organizations representing the beneficiaries and various segments of the public. The AAC oversees the activities of the Office of Public Affairs and the Office of Public Liaison.

The Associate Administrator for Operations (AAO) directs central and regional office program operations including the Medicare financial management systems, the management of Medicare contractors, the evaluation of contractors against performance standards, the Medigap operations review of State regulatory programs, and the statistically-based quality control and penalty programs that measure the administrative performance of Medicare. The AAO oversees the PRO and Survey and Certification quality assurance programs. HCFA maintains regional offices in each of the 10 DHHS regions. A new component in the Office oversees the operations of the Coordinated Care program. The Office of the Regional Administrator oversees both program and administrative functions. The Regional Administrators serve as the principal line officers for implementing HCFA functions in the regions and are the operating arm of the Administrator in the field.

The Office of Coordinated Care Policy and Planning (OCCPP) provides national direction and executive leadership for prepaid health activities, including HMOs, CMPs, other capitated health organizations (organizations paid a fixed amount per annum to provide health care to an individual), and vouchers.

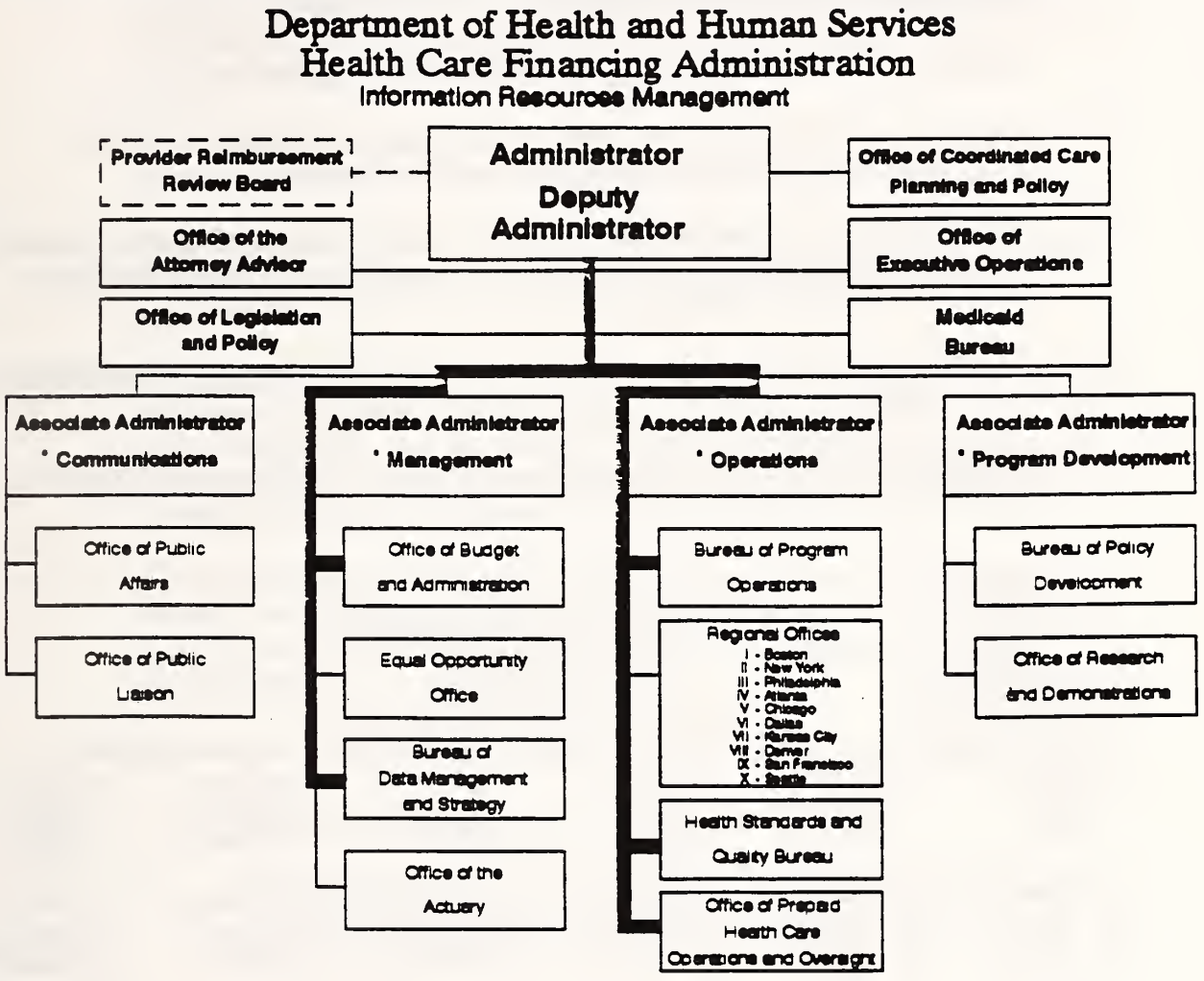
The Medicaid Bureau is responsible for Medicaid policy, Medicaid financial management systems, the Medicaid State Plan Amendment process, the evaluation of State agencies against performance standards, and the statistically-based quality control and penalty programs that measure the

administrative performance of Medicaid.

The Office of Legislation and Policy provides leadership and executive direction within HCFA for the legislative planning and policy analysis programs.

SECTION B -- HCFA IRM ORGANIZATIONS

HCFA'S IRM functions are distributed throughout the Agency, as appropriate.



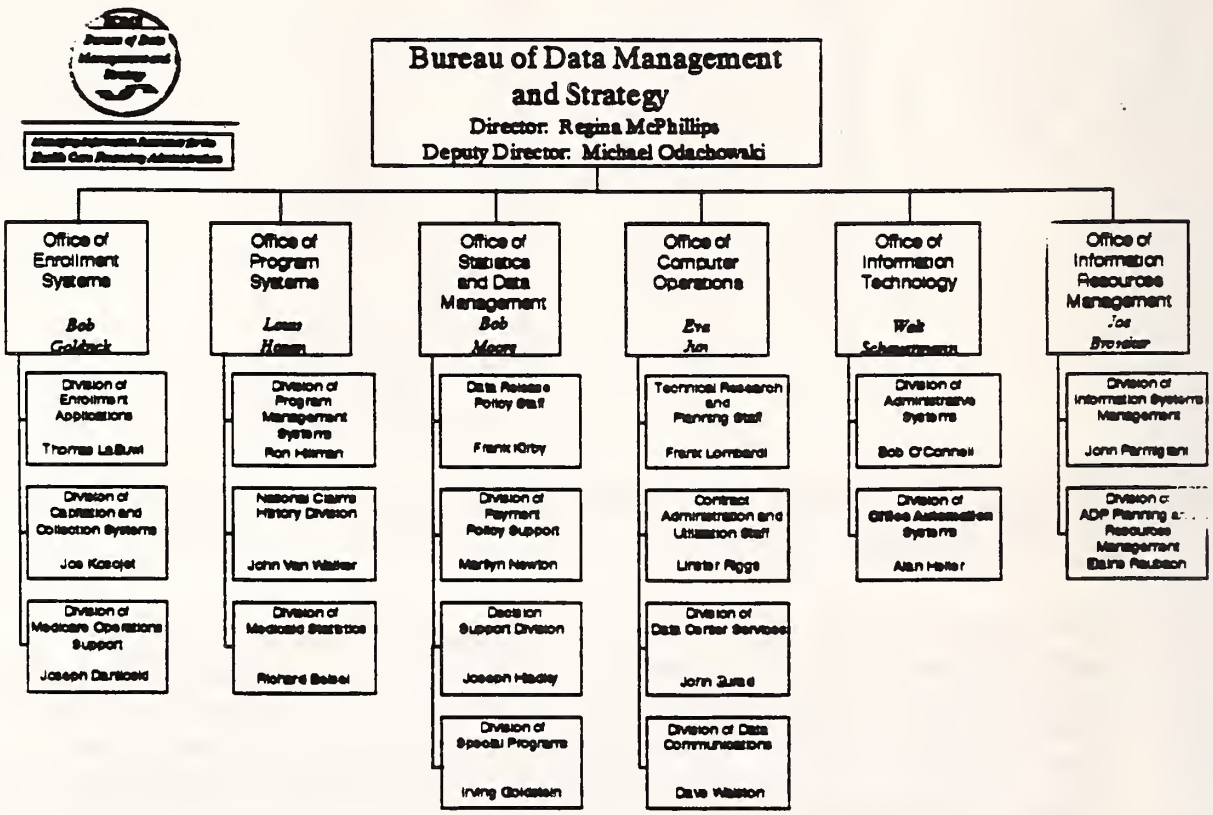
I. BUREAU OF DATA MANAGEMENT AND STRATEGY (BDMS)

The Bureau of Data Management and Strategy (BDMS), which is organizationally located under the AAM, serves as the focal point for the management of HCFA's information resources. The Director serves as HCFA's Principal IRM Official and is responsible for overseeing the Agency's IRM programs (including those of the Medicare contractors'). The Bureau develops and coordinates the implementation of HCFA's information strategy.

- o Establishes and maintains computerized records supporting HCFA programs including records for determining entitlement to the utilization of Medicare benefits and program management records

that facilitate the administration of HCFA programs.

- o Interfaces with the CWF for accurate claims payment.
- o Manages statistical data systems on HCFA programs to support program decisions by various HCFA components.
- o Coordinates the development of HCFA information policy as it relates to HCFA's long-range information plans with non-Federal segments of the health care industry.
- o Develops common coding standards and quality assurance monitoring mechanisms.
- o Provides technical information planning and developmental review of HCFA data collection initiatives.



- o Coordinates the development of special purpose statistical data bases required for assessing the impact of proposals which change health care financing programs, special research and evaluation studies, and general data dissemination.
- o Designs and develops the production of periodic statistical tabulations to assess the characteristics of HCFA beneficiaries and the utilization

and cost of program benefits.

- Provides direction for the nationwide operation of a centralized automated data processing (ADP) and data communications facility for HCFA including systems analysis, programming, computer operations, and data transmissions.

- Provides applications software support to HCFA headquarters and regional offices in administrative management systems.

- Negotiates and administers agreements and provides ADP liaison between HCFA users and other external organizations for the provisions of ADP capacity and support services.

- Develops, coordinates, and directs the HCFA ADP systems security program including its application to Medicare contractors, in accordance with the Executive Office of Management and Budget, General Services Administration, and Department of Health and Human Services' guidelines.

- Provides support and data handling capability to control/examine, audit, investigate and process/release a variety of provider billing, query, enrollment and premium billing correspondence and transactions.

The components of BDMS and their major functions are described below:

A. Office of Information Resources Management

  - Plans, organizes, and coordinates the activities required to maintain and enhance the HCFA-wide Information Resources Management (IRM) program.

  - Formulates and executes the HCFA IRM common expense budget and Information Technology Systems (ITS) plans and budget.

  - Develops and maintains a process to administer, document, and monitor the software and hardware changes planned and implemented within HCFA.

  - Provides systematic identification, assessment, and certification of new, revised, or existing HCFA information systems and processes.

  - Directs and coordinates the performance of post-implementation reviews for Agency systems.

- o Develops and maintains information systems development standards, supports the Standards Board activities in reviewing new proposals by the development community as well as requests for modifications.

- o Develops, coordinates, and directs the HCFA ADP Systems Security Program to ensure the protection of HCFA data, systems and ADP equipment.

- o Designs, evaluates, and performs analyses related to HCFA-wide data administration improvement projects.

- o Negotiates and administers agreements and provides ADP liaison between HCFA users, the Social Security Administration, and other external organizations.

- o Formulates strategies, prepares procurement documents, and performs contract administration activities for major IRM contracts through all phases of the systems development life cycle.

B. Office of Statistics and Data Management

- o Plans, organizes, and coordinates data development and information analysis activities to support payment policy development, research, and program assessment.

- o Serves as the primary contact with the Department, other Federal agencies, the health care community, and the public for the use and release of HCFA program data.

- o Provides decision support information and statistical analysis to meet the Agency's research, actuarial, legislative, economic and policy needs and the objectives of the Department's Medical Treatment Effectiveness initiative.

- o Implements and maintains decision support and statistical systems for physician, supplier, institutional, coordinated care, cost report, and medical data on specific Medicare populations including ESRD.

- o Measures the reliability of program decision support data needed to support HCFA's policy development, research and program assessment goals.

C. Office of Program Systems

- Develops short- and long-range plans for Medicare and Medicaid National Claims History databases (NCHDB) and Program Management (PM) systems required to meet the Agency's NCH and PM operations support needs.

- Handles the receipt, control, edit, quality assurance, and basic monitoring of Common Working File claims data, including development and maintenance of software providing access and front end quality control.

- Implements and maintains the centralized provider survey, certification (including clinical labs), and user charge databases that provide on-line query and reply capabilities through a national telecommunications network.

- Provides standard and ad hoc data files and reports on health standards and quality data, intermediary and provider statistical and reimbursement data, and information regarding chain ownership data.

- Designs, implements, maintains, and ensures the continuing operations of software applications that provide access and array NCH and PM data.

- Defines and coordinates a NCHDB and PM quality assurance program to ensure that the databases are reliable for use in program development and evaluating ongoing program operations.

- Designs, implements, and maintains a number of computer systems that are used by HCFA to monitor the performance of the fiscal intermediary contracting community.

- Implements and maintains applications for Medicaid data including the Medicaid Statistical Information System, the HCFA-2082, and the Medicaid drug rebate program.

D. Office of Enrollment Systems

- Performs the planning, organization, and coordination activities required to build and control HCFA's Medicare Enrollment database (EDB) and related hardware requirements and software applications.

- Defines and negotiates user requirements, design alternatives, systems specifications, test, conversion and implementation plans, operation plans and documentation for the EDB and related applications.

- Defines and coordinates an EDB quality assurance program, including the development of process controls, edits and statistical measures.

- Coordinates requirements for data about Medicare Enrollment with other components within HCFA, the Department, other Federal agencies and local governments, the private sector and the public.

- Supports the Common Working File by maintaining and providing accurate and timely information regarding beneficiary enrollment status for Medicare claims processing purposes.

- Designs, implements, and maintains software applications to prepare bills for the receipt and processing of Medicare premium remittances and the generation of Health Insurance cards.

- Provides data handling support to control, audit, investigate and release provider billing, query, enrollment and premium billing correspondence and transactions.

- Records enrollment in and disenrollment from health maintenance organizations and other group health plans.

- Computes the individual capitation amounts due for each beneficiary enrolled in a group health plan.

E. Office of Information Technology

- Develops short and long range plans for administrative, personnel, and financial systems.

- Provides applications software support to HCFA headquarters and regional offices in administrative management systems.

- Serves as focal point for the personal computing and office information systems technology use throughout the agency.

- Manages all aspects of the agency's investment in microcomputing technology.

- Develops and manages the agency's ADP training program.

F. Office of Computer Operations

- Develops short- and long-range plans for all centralized automated data processing (ADP) and data communications (DC) equipment and services for the HCFA Data Center (HDC) to ensure the availability of resources for Agency approved projects.

- Controls, measures, and plans the system configuration required to meet current and future processing requirements.

- Directs the procurement, operation, maintenance, and security of the HDC including: centralized large-scale computers; nationally distributed departmental minicomputers; vendor supplied operating system; utility software; DC activities and equipment; facilities management and other contracts; and, various intra/inter Agency agreements.

- Advises the Bureau and HCFA executive staff on ADP and DC issues and concerns and represents HCFA in dealings with Federal and non-Federal agencies and organizations in these areas.

- Serves as the Agency's final technical authority for the approval of the purchase, lease, and maintenance of all ADP and DC equipment and systems.

II. OFFICE OF BUDGET AND ADMINISTRATION

HCFA's Office of Budget and Administration (OBA), also under AAM, conducts the Information Collection Budget process and the Records Management Program.

III. THE ASSOCIATE ADMINISTRATOR FOR OPERATIONS

The Associate Administrator for Operations (AAO) provides the oversight of the IRM activities of the Coordinated Care Organizations, Medicare contractors, State survey agencies, and PROs with appropriate review and approval by the Principal IRM Official.

Office of Prepaid Health Care Operations and Oversight (OPHCOO) under the AAO is the focal point for oversight of the IRM activities of the Coordinated Care plans.

Medicare contractors

The Medicare contractors, called Fiscal Intermediaries and Carriers, fulfill the government's responsibility for paying Medicare beneficiaries and providers in a timely, accurate, and fiscally responsible manner.

Fiscal Intermediaries (FIs) are responsible for making payments to providers of services under Part A of the Medicare program. These payments are primarily for hospital inpatient and outpatient services. The FIs' responsibilities include:

- making and accounting for Medicare benefit payments;
- auditing the financial records of providers;
- making final settlement of cost reports;
- detecting and recovering any Medicare overpayments;
- safeguarding trust funds against payment for services that are not covered or medically necessary; and,
- providing information, guidance, and technical support to providers of service.

Carriers are responsible for making payments to beneficiaries and providers of service and adjudicating claims under Part B of the Medicare program. Reimbursement by Medicare carriers is primarily for physician and supplier services. Carrier responsibilities include:

- receiving and accounting for Medicare benefit payments;
- providing information and technical support to providers of service and beneficiaries;
- accounting for payments made directly to and/or on behalf of eligible Medicare beneficiaries;
- determining allowable reasonable charges for covered services;
- computing and recovering overpayments in cases of erroneous payment;
- maintaining the participating physician program; and,
- establishing methodologies to identify utilization patterns that deviate from medically accepted norms and bringing such patterns to the attention of the appropriate professional groups.

HCFA continues to implement policies that control costs through changes in payment methodology, limit overutilization, and detect fraud and abuse. HCFA monitors all Medicare contractor activities and reviews contractor performance in paying claims, serving Medicare beneficiaries, and assuring the fiscal integrity of the Medicare Trust Funds. The systems related to monitoring Medicare contractor IRM resources/activities include the following:

- The Contractor Performance Evaluation Program (CPEP)

  The objective of the CPEP is to measure and evaluate contractor compliance with HCFA's requirements for effectively and efficiently administering the Medicare program. In implementing CPEP, HCFA Regional Offices (ROs) are responsible for scheduling reviews of specified areas of the contractor's operation; the identification of deficiencies in performance; the formal notification to the contractor of the findings and deficiencies discovered; follow-up of the contractor's subsequent action; and the preparation and issuance of the Annual Contractor Evaluation Report (ACER) which summarizes and evaluates the contractor's performance during the review period.

- Intermediary Systems Testing Project (ISTP)

  The objective of ISTP is to discover and correct any deficiencies in an FI's bill processing system. The program is conducted annually at all FIs and the results are included in the CPEP. In participating in ISTP, FIs are required to process approximately 100 HCFA-prepared Part A bills during a 1-month time period. The bills are designed to test system edit capabilities and resultant FI responses. HCFA limits specific bill development to facilitate realistic processing. FIs are required to perform prompt and effective corrective action on any discovered processing deficiencies. Regional offices validate the corrective action activity and report results to HCFA Central Office (CO).

  ISTP was overhauled for FY 1992 to increase its effectiveness and establish a greater degree of consistency at all levels (i.e., FI processing, RO scoring of the test bills, and CO functional oversight). The new ISTP contains a new beneficiary population for the test environment and new test bills. A Review Guide assists in maintaining consistency of approach. The revised ISTP mechanism will also be used periodically to conduct checks of specific FI billing situations which require prompt evaluation.

- Carrier Systems Testing Project (CSTP)

  The objective of CSTP is to discover and correct any deficiencies in carriers' claims processing systems. The CSTP has approximately 185 test claims designed to evaluate all phases of a carrier's system, from

the initial edit screens through to payment and preparation of the Explanation of Medicare Benefits (EOMB). In addition, this package is used periodically to evaluate the carriers' implementation of special claims-related requirements, e.g., the revised EOMB. HCFA is revising this test package to conform with the new Health Care Procedure Codes (HCPC) and the revised type and place of services codes. The CSTP has traditionally been run every other year at each carrier, but effective with FY 1993 the CSTP will be run annually at each carrier.

- Yearly Systems Inventory Project

  HCFA collects detailed systems information from all Medicare claims processing contractors on an annual basis. This survey provides detailed information on mainframe computer hardware and software, claims processing software, telecommunications, document and image processing systems, micro and mini-computer systems, and telephone systems. The information is stored in a DBase III application called the Medicare Contractor Systems Information Database (MCSID). The database has excellent query and reporting capabilities and is used for a variety of management and technical purposes. For example recently, HCFA used the information to decide whether it was necessary to upgrade the CWF host contractor storage devices to accommodate new legislative initiatives. The information in the database has also proved useful as contractors move into shared systems arrangements. HCFA can browse selected system information for all users of a particular shared system to verify uniform system compatibility.

- Independent Verification and Validation (IV&V) Services for the CWF Maintenance Contract

  This activity is still in the planning stage and is described in Chapter II. An IV&V contractor is needed to bring an unbiased view to the verification and validation process, to develop an in-depth plan to examine all technical aspects of the CWF maintenance (CWFM) process, and to monitor CWFM contractor performance and deliverables.

Peer Review Organizations

PRO functions and organizational requirements are specified in Title XI of the Social Security Act. The Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 set the basic organizational framework for the PRO program. This framework was expanded upon by the Social Security Amendments of 1983, the Deficit Reduction Act (DEFRA) of 1984, the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985, the Omnibus Budget Reconciliation Acts (OBRA) of 1986 and 1987, 1989, 1990 and the Medicare Catastrophic Coverage Act (MCCA).

The concept of medical review embodied in the current Utilization and Quality Control Peer Review Organization (PRO) program has evolved over many years and through several stages: from hospital utilization review to Professional Standards Review Organization (PSRO) to PROs. Within that continuum, medical review has moved from little Federal direction and maximum hospital autonomy to the outcome-oriented, highly focused PRO program. Regardless of the form and content of medical review, the goal under the Medicare program has always been the same: to assure that services provided to beneficiaries are medically necessary, furnished in the appropriate setting (e.g., hospital vs. skilled nursing facility), and meet professionally recognized standards of quality.

PROs represent the primary Federal effort to monitor the quality of care provided to Medicare beneficiaries. Under contracts with HCFA, private PROs in each State review medical records to determine the necessity, appropriateness, and quality of inpatient hospital services. Reviews by PRO physicians may lead to remedial education, peer counseling, payment denial, and--as a last resort--the exclusion of a provider or practitioner from Medicare. Program spending in fiscal year 1991 totaled $277 million.

HCFA has found that the present approach to PRO review is neither effective nor efficient. New conceptual approaches to quality assurance offer not only the promise of increased cost-effectiveness, but the opportunity for the PRO program to make a profound contribution to the improvement of care provided to Medicare beneficiaries. The Health Care Quality Incentive Initiative (HCQII) is HCFA's strategy to realize this opportunity.

SECTION C -- HCFA IRM SUPPORT ENVIRONMENT

I. IRM OPERATING PRINCIPLES/POLICIES

- o Implementation of Departmental IRM policies.
- o Full and active participation by user components to ensure HCFA systems will meet the Agency's mission-related information needs.
- o Useful, timely, accurate, consistent, and accessible data and information to administer HCFA programs effectively.
- o Compatible and integrated information and data systems through the use of Data Base Management System (DBMS) technology.
- o Maintenance of the HCFA Information Systems Development Guide (HISDG) to provide clear guidelines for systems development and management.
- o Implementation of a capacity management program to manage current equipment capacity and plan for upgrades.
- o Minimized costs for development, operation, and maintenance of information systems.
- o Operating flexibility for responding to unanticipated information needs quickly and efficiently.
- o Appropriate utilization of End User Computing (EUC) capabilities and integration of EUC with mainframe computer processing.
- o Appropriate utilization of online processing/data communications.
- o Ongoing assessment of ways new technology can be used to realize cost savings or other benefits.
- o Outreach programs and technical assistance to contract agents to ensure adherence to HCFA policy.

II. IRM SUPPORT AREA ENVIRONMENT

The Agency has revised its information processing environment, moving from an independent applications systems design and operation to an integrated data base management environment. This environment has enabled HCFA to organize its data to improve their accuracy, accessibility, and timeliness. ATTACHMENT C is a matrix showing the direction of the information architecture.

The Agency uses a combination of traditional and new concepts to manage its information resources. These include:

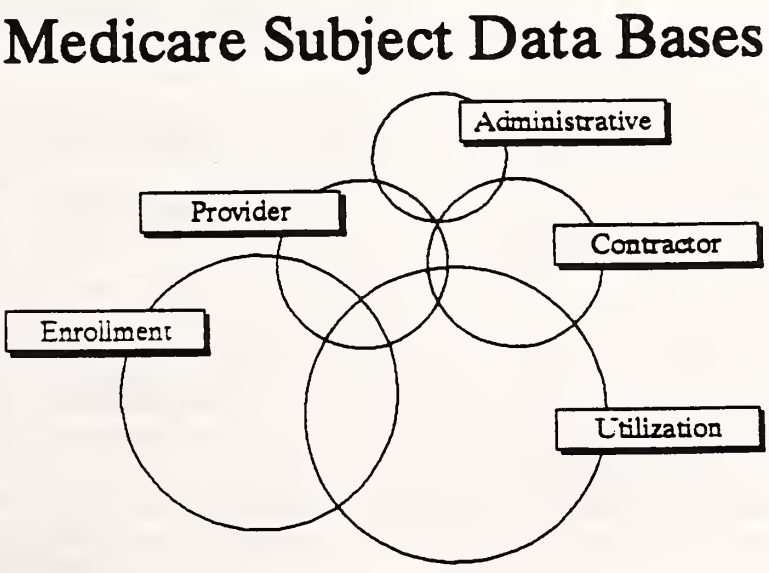
- o an integrated planning, budgeting, and project tracking process;
- o the ongoing systems security reviews and follow-up audits;
- o application systems inventory;
- o internal controls and triennial reviews of processes;
- o the implementation of configuration management, quality assurance, and project management programs;
- o the implementation of a charge back system;
- o the implementation of a structured systems development methodology; and
- o the development of a data administration function using a meta data dictionary and DBMS data dictionaries.

A. Information Assets

1. Major Data Banks/Data Bases

HCFA has developed a shared collection of interrelated data with the flexibility to meet the needs of users with differing information requirements. The following section outlines HCFA's new information architecture.

2. Information Architecture



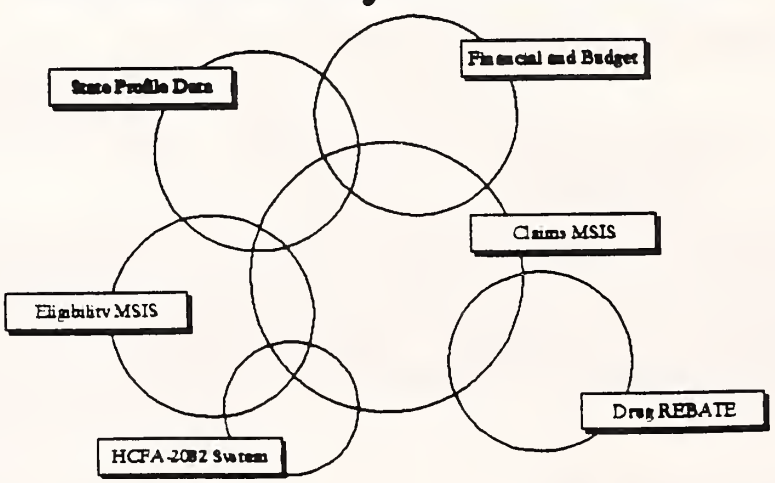
Medicare Beneficiary Data
- Eligibility and Demographic Data
- Coordinated Care Data
- Direct Billing Premium Collection Data
- Utilization Data (claims)
- Medical/Clinical Information
- Other Payers

Provider Data
- Institutional Survey/Certification Data
- Institutional Cost Reports
- Non-Institutional Provider Characteristics
- Non-Institutional Provider Payment Data
- Unique Physician Identification Number

Contractor Data
- Performance Data
- Budget and Expenditures
- Workload Data
- Coordinated Care Plan Characteristics
- Data about accrediting and survey organizations
- PRO data

Medicaid Data
- State Plan Data
- Medicaid Eligibility, Recipient, Utilization, and Expenditure Data
- State Agency Data
- Medicaid Budget Data
- Medicaid Quality Control Programs Data
- Medicaid Drug Rebate Data

Medicaid Subject Data Bases



Administrative Data

- Financial Management
- Human Resources Management
- Correspondence Management
- Operations Management

B. Information Management

1. Data Management

HCFA treats information as a valuable Agency resource. It identifies information needs and develops the systems and processes to acquire, manage, and disseminate the information from an Agency-wide perspective. The data administration function provides this capability for managing HCFA's data bases and coordinating IRM activities.

HCFA has established a data dictionary that documents most HCFA data elements and applies standard naming conventions to reduce redundancy. HCFA has also established a data modeling convention and defined the tools to be used in modeling. Data dictionary and data modeling tools used in HCFA include: EXCELERATOR, DESIGNMANAGER, and DATAMANAGER.

HCFA's data dictionary approach and data administration tool set are compatible with the Information Resources Directory System (IRDS) requirements supported by the Department.

2. Information Collection

HCFA's paperwork management program provides that all public information collection requirements be limited to the minimum necessary to support the proper and appropriate administration of the Medicare and Medicaid programs. Currently, HCFA's public information collection requires over 108 million hours of burden -- 75 percent of the total Department burden. Each proposed regulation is reviewed to minimize reporting requirements. In areas where HCFA's needs are similar to those of other Federal programs, such as Aid to Families with Dependent Children, Food Stamps, etc., HCFA coordinates with the pertinent Federal agencies to provide uniform, nonduplicative information requirements and eliminate redundant data. HCFA continually explores innovative ways of administering these programs through electronic technology.

3. Information Dissemination

HCFA has an active public data dissemination program to support a more effective health care delivery system. HCFA's Public Use Files (PUFs), program publications, and statistical information services are some of the ways in which information is disseminated to the health care community. HCFA disseminates this information on various media: diskettes, cartridges, and Digital Audio Tape (DAT) for the PC, UNIX workstation, and mainframe environment. In addition, HCFA provides a statistical information service for both Medicare and Medicaid data.

HCFA distributes printed material nationwide to Medicare contractors, providers, State agencies, and the public. This material includes forms, manuals, and publications. The Government Printing Office (GPO) and the National Technical Information Service offer this information for sale to the public. Significant printing jobs include the Medicare Hospital Mortality Information, the Unique Physician Identification Number (UPIN) Directory, and the pamphlet, "Your Medicare Guide." HCFA will improve the process through electronic access to the GPO to permit components to check the status of their individual printing orders.

An additional improvement is to distribute Program Manuals, pertinent portions of the Code of Federal Regulations (CFR), and titles within the Social Security Act on CD-ROM. A wide audience consisting of central office, regional office, and HCFA's contractor and provider community will receive a fully updated CD-ROM on a monthly basis. This means of distribution reduces printing costs, eliminates the need to file replacement pages in hardcopy manuals, and provides electronic search capabilities.

HCFA is also evaluating more cost effective ways to distribute several of the other major printed documents and tape files listed above. CD-ROM and WORM technology are alternatives being considered depending on the use, size, and audience.

4. Forms/Records Management

HCFA processes approximately 400 forms requisitions annually for printing and distributing 148 million forms to 300 organizations nationwide. These organizations include intermediaries, carriers, State agencies, the SSA warehouse, 10 HCFA regional office, and 40 internal offices.

The forms management staff have modernized the process through the use of a MacIntosh computer to produce camera-ready copies inhouse and through an automated forms and distribution system. Plans for future improvements include giving Medicare contractors electronic forms ordering capability.

HCFA's Records Management Program provides effective controls over the creation, organization, maintenance, use, and disposition of records. It also provides for the development and application of standards, procedures, and techniques designed to improve the management of records, ensure the maintenance and security of records of continuing value and facilitate the segregation and disposition of all records of temporary value.

The online features of the EDB will eliminate some paper forms.

C. Software Management

HCFA has recently published the HCFA Information Systems Development Guide to provide standards and guidelines for both government and contractor staffs for the development of information systems. All software development efforts will follow the procedures and documentation standards outlined in the Guide.

1. Data Base Management Systems (DBMS)

HCFA has two DBMSs, Model 204 and IDMS/R. Currently the Hospital Insurance/Supplementary Medical Insurance (HI/SMI) and several administrative systems are supported by IDMS/R. Model 204 supports many statistical and program management subject-matter data bases, including NCH and EDB.

The Enrollment data base was loaded from IDMS/R to Model 204 in January 1991. Enrollment transaction processors will begin running parallel to the HI/SMI to verify the accuracy of the new system in June 1992. After the thorough validation, HCFA will discontinue its use of IDMS/R for the Enrollment data base.

Administrative systems that interface with certain Departmental data bases will continue to operate under Cullinet's IDMS/R.

With the addition of large new databases such as Uniform Clinical Data Set (UCDS), the proposal to implement the Employee Empowerment Initiative, and the possibility of

significant new health care legislation HCFA is evaluating its future database needs.

2. Information Systems

Manage Medicare Beneficiary Enrollment

CONTENT/PURPOSE: These systems maintain information on demographics, initial entitlement, and eligibility. They provide information to CWF host sites which interface with the intermediaries and carriers who process Medicare claims. The systems support premium billing and collection and enrollment and disenrollment in Health Maintenance Organization (HMO) plans. A wide variety of decision support systems provide the data necessary to measure and evaluate the operation and effectiveness of the Medicare program, perform program assessment, calculate various Medicare premium rates and capitation amounts, and monitor program expenditures. The Enrollment Database Workbench provides query and reporting capabilities against enrollment files and a standard programmer toolset.

SUPPORT: SSA's National Computer Center (NCC) IBM-compatible mainframe computers currently handle transaction processing for HI/SMI. In FY 1992, this process will move to the HDC as part of the PRISM enrollment redesign. Currently beneficiary entitlement files are shared with external organizations (e.g., Medicare contractors) on microfilm and magnetic tapes. This distribution will take advantage of optical storage devices (e.g., write once read many (WORM)) in the future. The parallel operation for Enrollment is at the HDC.

DATA/INFORMATION RELATIONSHIP: These systems identify Medicare beneficiaries. The EDB is designed to support 600 users with 25 concurrent users at any point in time.

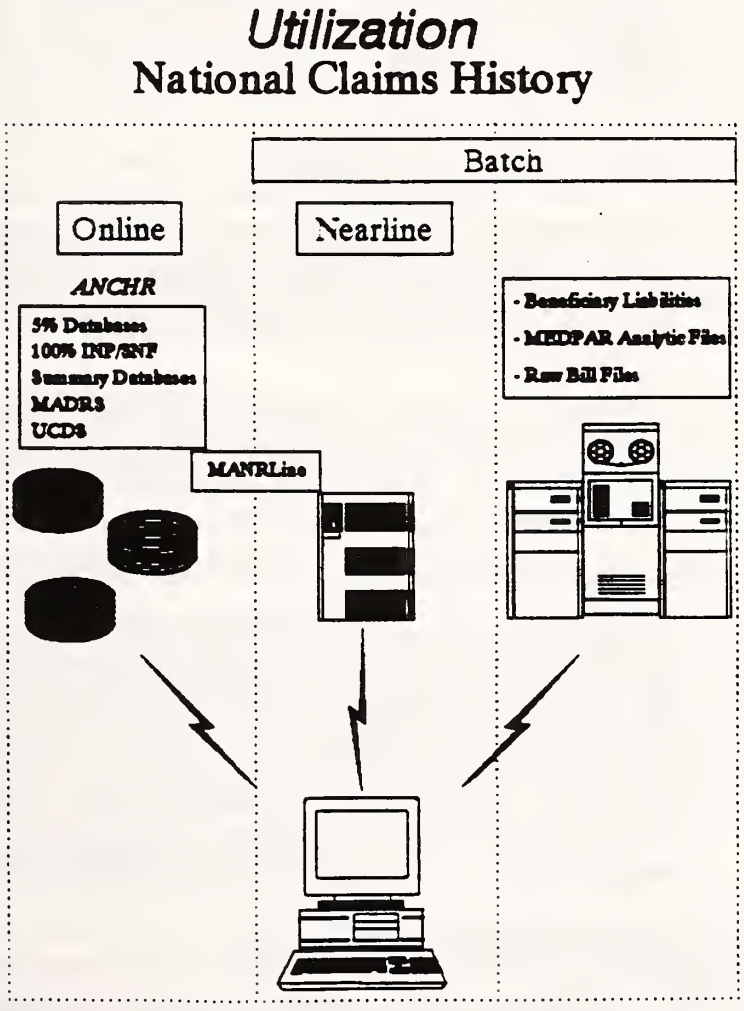
Maintain National Claims History

CONTENTS/PURPOSE: These systems maintain information on deductible status, medical utilization, and clinical findings. A wide variety of statistical, actuarial, and decision support systems provide the data to project Medicare costs, assess program development issues, and monitor the overall operation of the Medicare End Stage Renal Disease program.

The Access to the National Claims History Repository (ANCHR) system provides structured access to and retrieval

from the online utilization databases. These databases contain 100 percent of all inpatient and skilled nursing facility claims for 4 years (the IP/SNF Database) and all claims for 4 years for a sample of beneficiaries, including all ESRD beneficiaries (the 5%+ Databases). ANCHR enables users to:

- o Follow up promising leads immediately by adjusting search criteria or linking various files;
- o Set up complex search relationships using Boolean operators;
- o View, print, or store selected output records for later analysis; and,
- o Link to the 5%+ Enrollment Database (EDB) for demographic data.



The Menu-driven Access to the Nearline (MANRLINE) system provides access to all beneficiary claims for 4 years, over 2

billion online and nearline records. MANRLINE's online menu permits users to select records for a set of claim numbers or build search criteria and save the customized views. The system returns any claim matching those criteria and, if requested, all related beneficiary claims. Users can submit queries daily, but the retrieval process runs monthly.

SUPPORT: These systems are supported at the HDC. The Network Data Mover (NDM) software and IBM Information Network (IIN) supports data transmission for Medicare contractors. HCFA has a waiver from GSA to continue using the IIN until FTS 2000 can support the requirements of this traffic.

DATA/INFORMATION RELATIONSHIP: These systems identify the services Medicare beneficiaries use. The NCH is designed to support 2000 users with 50 concurrent users at any point in time.

Monitor Provider Activities

CONTENTS/PURPOSE: These systems include quality control, certification, cost reporting, and physician registry. They support the administration of both the Medicare and Medicaid programs.

SUPPORT: HCFA's Central Office and Regional Office Distributed Terminal Network, in an information center environment, is hosted by the HCFA Data Center. Microcomputers located in State agencies provide for electronic preparation of data on provider certification.

DATA/INFORMATION RELATIONSHIP: Most of the institutional provider systems utilize data from survey and certification systems for projecting long-term trends in health care costs for hospitals, Home Health Agencies, Skilled Nursing Facilities, clinical laboratories, and other institutional providers. Pricing data, ownership relationship data, and claims data are used to revise payment policy, develop pricing methodologies, and assess health outcomes.

Manage Contractor Activities

CONTENTS/PURPOSE: These systems include contract administration, financial operations, debt management, budget reporting, management of the Peer Review Organizations, and Group Health Plan monitoring. They support the administration of both the Medicare and Medicaid programs.

SUPPORT: HCFA's Central Office and Regional Office Distributed Terminal Network, in an information center environment, is hosted by the HCFA Data Center. Microcomputers located at the Medicare contractors provide for electronic preparation of data on budgets, expenditures, and workloads.

DATA/INFORMATION RELATIONSHIP: These systems pass data to the Administrative Systems for developing budget projections. They also relate to the State agency provider certification processes. Group Health Plan data supports financial viability determinations and auditing those plans.

Administer the Medicaid Program

CONTENTS/PURPOSE: Participating States submit Medicaid recipient and medical utilization information on a voluntary basis. This system supports Medicaid-oriented actuarial analysis, legislative proposal review, and program research and demonstration projects to measure and evaluate the operation and effectiveness of the Medicaid program. State agency budget and expenditure data assist the formulation of the Federal Medicaid budget. State expenditure data ensure that Federal matching is applied only to allowable expenditures. The Omnibus Budget Reconciliation Act of 1990 (OBRA 90) added the Medicaid Drug Rebate program. HCFA calculates the drug rebate amounts and monitors the rebate program.

SUPPORT: The Medicaid Statistical Information System, the program characteristics, the budget and expenditure systems, and the Drug Rebate System are operated at the HDC using Model 204.

DATA/INFORMATION RELATIONSHIP: the Medicaid Statistical Information System creates and maintains the Medicaid beneficiary information and interfaces with Medicare beneficiary enrollment and utilization processes. This file only includes data from participating States. The 2082 system maintains summary claims data for all States. The State agency data interfaces with contractor data functions.

Manage Agency Resources

CONTENT/PURPOSE: These systems process a myriad of data pertaining to and supporting HCFA personnel, finance, contracting, correspondence, operation/administrative activities, and information resources management. The redesigned systems under PRISM development will further automate and integrate these processes and electronically incorporate

regional office/central office activities into a unified process. The move to the single site will require new processes to support functions currently performed by SSA.

SUPPORT: Office automation systems and HCFA Data Center processing. An image processing pilot will examine the feasibility of utilizing this type of technology for correspondence processes in the future.

DATA/INFORMATION RELATIONSHIP: These systems create and utilize Administrative Information.

3. Operations and Maintenance

HCFA recently conducted a software conversion study that calculated the number of lines of code maintained by HCFA to determine conversion complexity. The contractor classified code according to conversion difficulty; therefore, the counts do not correspond to HCFA's traditional application systems nomenclature. HCFA has three classes of lines of code under this scheme:

a. Complete reprogramming or rewrite in the case of a different hardware environment -- 1,448,010 lines of code.

b. Partial reprogramming or rewrite in the case of a different hardware environment -- 1,518,555 lines of code.

c. Simple syntax translation in the case of a different hardware environment -- 1,495,890 lines of code.

HCFA does not routinely maintain statistics on the number of lines of code changed annually, but it estimates approximately 70 percent of the programming staff supports this activity.

4. Software Modernization

The PRISM effort was HCFA's software modernization endeavor. The Agency is now focusing on building online interfaces between the data bases and users to improve access to the data. The use of Computer Aided Software Engineering (CASE) tools are enhancing this software effort.

HCFA is converting to COBOL II to conform to FIPS.

D. ADP and Office Automation Equipment Infrastructure

1. HCFA Data Center (HDC)

Recent equipment installations have provided the following capabilities to the HDC:

- Two mainframe central processing units (CPUs) -- the IBM 3090-500E and an IBM 3090-600S -- provide a total of 180 millions of instructions per second (MIPS) processing capabilities.
- HCFA's direct access storage devices (DASD) provide approximately 1,025 billion bytes, or 1.0 terabytes (TB) of storage capability.
- HCFA has six Storage Technology robotic tape cartridge systems. These robots minimize the need for human operators to mount massive volumes of tapes.
- HCFA has two Uninterruptable Power Supply (UPS) systems to support increased electrical consumption.
- HCFA maintains approximately 100 mainframe software packages for operation of the HDC.

HCFA has revamped the HDC computer room and installed the appropriate environmental facilities to accommodate all the new hardware. Presently the Agency is remodelling the warehouse facility for environmental storage.

The HDC supports more than 7,000 users involved in the Medicare Decision Support System, Medicaid Statistical Information System, program management systems, and administrative systems. These users include a number of organizations external to HCFA that are required to interact with HCFA's data on a daily basis. In HCFA, over 2,000 terminals and PCs provide access to the HDC via IBM 3174 and ITT controllers.

2. HDC Operations

The HDC processed approximately 90,000 batch jobs and 27,000 individual sessions per month on mainframe operations.

The HDC is now approaching 7,000 users in a multi-vendor environment, with 7-day, 24-hour operations.

HCFA designed and installed a Production Control System for workload processing.

The HCFA Action Desk provided support in resolving some 15,000 user requests.

The HDC Users' Guide promulgates the processing standards for mainframe users.

The core of the HDC Disaster Recovery Plan is the "Hot Site" in Carlstadt, New Jersey. The "Hot Site" would become the temporary location to support HCFA's ADP and data communications operations should a disaster befall the HDC. HCFA periodically tests this capability.

HCFA has implemented a Fee-For-Service system for data processing services provided to external users.

Annually, HCFA processes approximately 650 requisitions totalling more than $24 million in expenditures for ADP maintenance, equipment, services, training, and supplies.

3. Resource sharing/commercial use

Until FY 1993, the SSA NCC will support HCFA operations related to Medicare Third Party and Direct Billing. Most of these workloads are high volume and are processed in batch mode (IBM compatible).

Access to SSA's NCC is supported by SSA's National Network which is operated under IBM's Systems Network Architecture (SNA)/Synchronous Data Link Control (SDLC) protocol.

The HDC supports the data processing needs of the HHS Office of Inspector General (OIG) and serves as a backup facility for a critical application of the Administration for Children and Families (ACF).

HCFA's databases are becoming a rich source of information for both internal analysis and by a large external user community. The Agency for Health Care Policy and Research, SSA, the Internal Revenue Service (IRS), the Department of Veterans' Affairs, and other Government organizations are increasingly sharing data with HCFA. Two prominent examples are:

- o the SSA/IRS/HCFA Data match for the Medicare Secondary Payer (MSP) program

- o the SSA program service centers (PSC) and field offices access to HCFA'S Billing and Collection Master (BCM).

4. End User Computing (Micro and Minicomputers) and local area networks

For the implementation of the End-User Computing (EUC), HCFA installed over 3,700 microcomputers (micros) throughout the Agency (a ratio of seven PCs for every eight employees).

HCFA manages two 9370 minicomputers (minis) in central office and one in each of the ten regional offices. The HHS DIMES network provides connectivity. The minicomputers support the Agency E-Mail system, IBM Professional Office Systems (PROFS), and the Text Information Management System (TIMS). This configuration allows E-Mail connectivity throughout HCFA and with the HHS E-Mail system, allowing E-Mail exchange between HCFA and other OPDIVs. In the ROs, local users access the minis via direct coax connections, PCs in terminal emulation mode and ITT terminals.

HCFA has 17 Local Area Networks (LANs). These LANs support about 643 users throughout the central and regional offices. Most HCFA LANs are Novell based token ring networks. Others are IBM PC LANs and WANG system replacements.

Continued the micro User Outreach Program which has consistently demonstrated effective technical support and resulted in upgrades of older micro systems to new EUC standards.

Conducted 427 micro and mainframe training classes; training 3,281 students.

Expanded the use of the Individual Learning Center (ILC) which has consistently provided staff enhancement.

Completed the installation of a base level of PROFS throughout the Regional Offices and within Central Office.

The micros are used by professional, technical, and clerical staff for actuarial, statistical, program management, administrative, and related reports and activities. HCFA's current standards for micros are IBM compatible hardware and the use of WordPerfect, Lotus, dBase III, and PRO-COMM+ software. The reasons for such standards are ease of personnel utilization, provision of centralized support and training, and the ability to incorporate current hardware into

the EUC configuration. Approximately 60 different microcomputer programs are also available for specialized use. A small number of MacIntosh installations are utilized to support graphics and desk top publishing functions.

E. Communications

1. Local

Voice

HCFA continues to utilize the Northern Telecom, Inc. (NTI) switch. An on-premise switch provides 5-digit internal calling and access to public switch message networks. Approximately 3,000 HCFA voice stations are on the system and have access to features such as call transfer, call hold, queuing, call pick-up, call forwarding, speed dialing, and 3-way conference.

Data

The HDC provides for the reliable transmission of data between and among its more than 7,000 system users as well as other data centers.

HCFA uses over 1,938 local dial-up circuits for PC access. Over 90 dedicated point-to-point SDLC circuits connect local 3270-type cluster controllers and Remote Job Entry (RJE) terminals. Most users rely on IBM 3270 or compatible terminals utilizing IBM's system network architecture protocol.

HCFA has converted approximately 700 data lines to Northern Telecom, Inc., resulting in savings of approximately $18 per month per line.

2. Campus/Intracity

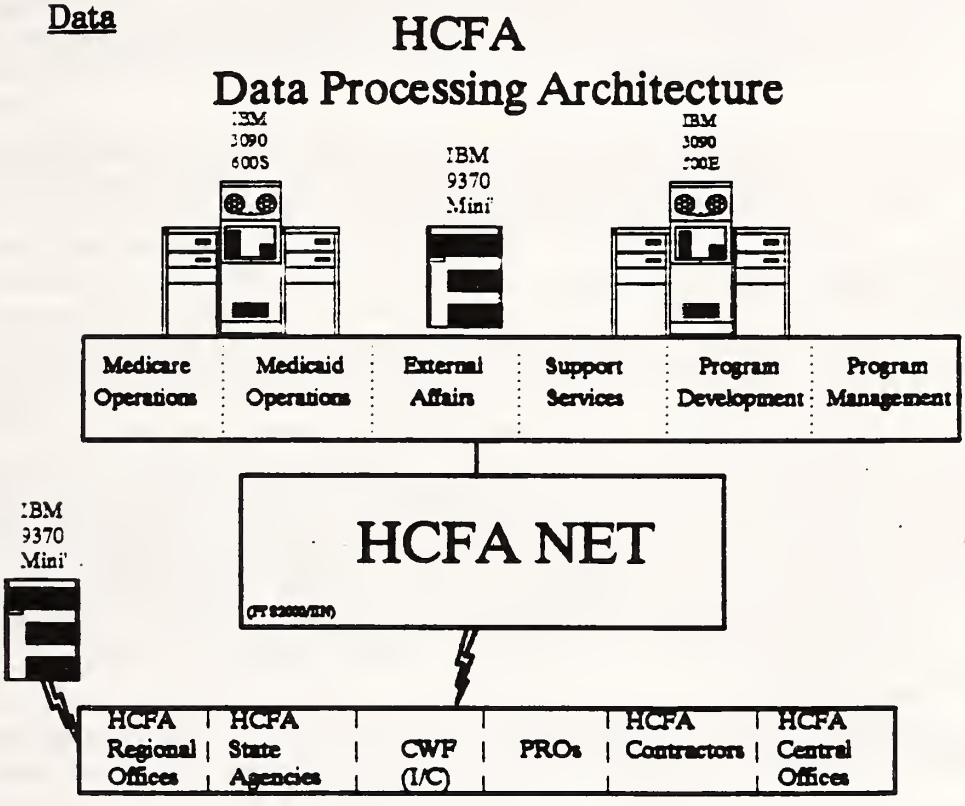
The HDC communicates to SSA's NCC through two T1 circuits that support high speed file transfer of HI/SMI related data via IBM HYPERChannel and two point-to-point circuits.

3. Inter-city/inter-state

Voice

Long distance voice calls are routed through the switch's automatic route section (ARS). FTS circuits are the normal selection for ARS. Calls to the Washington, D.C., area use a foreign exchange fiber optics service.

Data



HCFA utilizes VAN services via the National Library of Medicine (NLM) contract for nationwide network configuration and management. This VAN (the IIN) provides uniform communications between the HDC, Medicare contractors, CWF sites, and HCFA regional offices. HCFA has also completed the national implementation of Network Data Mover (NDM) mainframe communications software in support of CWF. Currently there is no FTS 2000 replacement for IIN service. HCFA expects to complete the migration to FTS 2000 pending the results of a study to identify alternatives to the IIN for CWF traffic. OIG assessed the current CWF network as cost effective.

The Tymnet, Telenet, and Compuserve networks provide the HDC with access to the Peer Review Organizations, HMO Plans, and State agencies. These applications will migrate to FTS 2000 in mid FY 1992.

Two multi-point circuits provide employees in the Hubert H. Humphrey building in Washington, D.C. with access to the HDC. A nationwide multi-point network connects all 10 ROs to the HDC.

These data communications are used for statistical processing (Medicare and Medicaid), program management, and administrative management.

F. Single Site Relocation

HCFA plans to relocate to a single site in 1994. In conjunction with the relocation, the ADP requirements plan includes: HDC and other ADP equipment space and facilities; uninterruptable power source for critical load; data cable access; voice/data switch; and building electrical services. A fiber optic backbone will provide intra-site data communications through local area network topology. This architecture will upgrade HCFA's communications ability which will be further enhanced via LAN topology. There are two alternative physical layouts: a multi-building campus or a single high rise building.

III. MEDICARE CONTRACTOR IRM ACTIVITIES

Among HCFA's primary missions is the management, processing and payment of Medicare claims in the most timely, consistent and cost efficient manner possible. HCFA's primary role in meeting this mission is overseeing multiple contractors with responsibility for processing Medicare claims filed for or by beneficiaries. From the inception of the Program, Fiscal Intermediaries (FIs) and Carriers have adjudicated Medicare claims. Historically these contractors have had significant latitude in the choice and development of their claims processing systems. Contractors have pursued a great variety of approaches for these systems as they tried to find solutions appropriate for their environments.

The current environment is configured in a network of eighty (80) intermediaries and carriers (CWF satellites), nine (9) CWF Hosts, one (1) National Maintenance Contractor and the HCFA Data Center. The management of the network is HCFA's responsibility with each CWF Host responsible for its sector operations and the linkage to its individual satellites. The NMC is responsible for CWF system support and the modification and issuance of CWF software. The HDC provides enrollment and eligibility data to the CWF host sites and collects and stores data from the CWF system.

The individual Part A intermediaries and Part B carriers receive and process a variety of claims. Some of the processing sites also serve as regional specialty processors (such as Parenteral/Enteral Nutrition (PEN) processors and Home Health Intermediaries (HHI). The intermediaries and carriers maintain the network of communication links with providers for claims submission and inquiry. Providers submit claims on paper or through electronic media claims (EMC) (e.g. tape, diskette, online, PC batch, CPU to CPU). Processing capabilities, memory capacity, database, and direct access storage devices (DASD) at the intermediary and carrier are determined by the contractor's claims volume and shared system requirements.

In the mid-1980s, the lack of uniformity in contractor operations, the costs of change management, and the coordination problems associated with sharing best practices and innovation led HCFA to impose standard software modules across systems boundaries. Contractors or vendors under HCFA sponsorship developed critical functions such as Prospective Payment System reimbursement and Medicare Secondary Payer into standard applications and all contractors were required to install the modules within their systems.

In the latter part of the 1980s, HCFA initiated a more organized approach to systems development. HCFA introduced the Core Criteria to bring about contractor conformity to standard claims processing practices and developed a strategic systems triad to improve the overall functionality and quality of claims processing. This triad consists of the Shared System Initiative, CWF, and PRISM. The PRISM effort interfaces with claims processing by making enrollment/eligibility data more accessible to CWF Host sites. It also collects historical CWF data for policy development and program management purposes and assures that HCFA's internal statistical and administrative systems make optimal use of these data.

Shared System Initiative

The Shared System Initiative encourages contractors to join common arrangements for claims processing and reduce costs and lead time for changes. The initiative currently has two varieties -- shared maintenance and shared processing.

Shared maintenance is defined as an arrangement whereby two or more contractors -- a user group -- use the same claims processing system operated at their individual computer facilities. A single maintenance contractor develops all systems software maintenance and enhancements. All members of the user group install these changes at their facilities. Costs of the changes are shared by the group members. HCFA realizes savings from these arrangements because they reduce the level of effort and costs associated with implementing legislative and other mandatory systems changes as well as system related projects such as CWF. They also

improve consistency among contractors, thus enhancing claims processing accuracy and the uniform administration of benefits.

Shared processing is defined as several contractors using a single data processing center to process Medicare claims. Both hardware and software are used jointly by the contractors, with one contractor maintaining and operating the claims processing system and charging its users a fee for the claims processing service. HCFA realizes considerable savings from these shared arrangements because claims processing costs are reduced by paying for one computer system as opposed to several. Shared processing further improves the uniform consistency among contractors making mandatory systems changes.

Forty-three (43) intermediaries are currently in shared arrangements using six (6) Part A claims processing systems and twenty-seven (27) carriers are in shared arrangements using eight (8) Part B claims processing systems. The remaining contractors are working toward entering shared arrangements.

Common Working File (CWF)

HCFA implemented nine (9) CWF sectors which became fully operational by December 1990, making CWF a nation-wide Part A/Part B benefit coordination and pre-payment claims validation system. One National Maintenance Contractor maintains the CWF software, a HCFA/Government-owned package. Using local databases managed by designated contractors, called "Hosts", the CWF system provides the contractors (intermediaries and carriers, called "Satellites") with beneficiary entitlement and eligibility data, and pre-authorizes payment of Medicare claims. Each intermediary and carrier is assigned to at least one CWF host site. Relevant data from the intermediaries and carriers is compiled at the respective host sites and transmitted to the HDC for loading into PRISM databases.

Electronic Claims Processing Environment

Medicare leads the health insurance industry in electronic data interchange:

- Currently our intermediaries and carriers combined receive about half of our 600 million annual claims volume in electronic form.
- All Medicare certified institutional providers can access limited eligibility data electronically.
- HCFA is a member of the American National Standards Institute (ANSI). One of our representatives is an insurance subcommittee officer.

- o HCFA was the first insurance organization in the U.S. to pilot-production-test the ANSI standard electronic remittance advice. Based on test results, we have proposed a number of changes to the standard, and hope to implement a revised version in FY 1992. There are no approved ANSI standards pertinent to Medicare data interchange at this time.

- o HCFA has a number of representatives on the Workgroup for Electronic Data Interchange, a group that operates as part of the Secretary's healthcare administrative reform initiative. This group is charged with developing an all-electronic environment suitable for all health insurance payers.

IV. AUTOMATED INFORMATION SYSTEMS (AIS) SECURITY

1. HCFA has 153 systems that process sensitive data and 27 security plans to cover them. These plans address the 1989 comments of the National Institutes of Standards and Technology (NIST). These comments were based on our original submissions and OMB Bulletin 88-16.

   Additionally, HCFA updated these plans in conjunction with OMB Bulletin 90-08. Independent committees, consisting of HCFA Systems Security Officers, certified them as adequate. Each new system processing sensitive data is required to have a security plan as part of its documentation before the system is considered complete.

2. Computer Systems Security Awareness and Training

   HCFA has provided extensive systems security awareness training to comply with the Computer Security Act. In addition to the normal quarterly systems security meetings and distribution of posters and handouts, the HCFA Systems Security Officer (SSO) has provided various classroom and individualized training opportunities. The following list outlines HCFA's formal systems security training:

   a. In January and February of 1990, HCFA held 10 training classes for employees who work with sensitive information on personal, mini, or mainframe computers. Each of these sessions was 3 1/2 hours in length. A total of 900 employees attended this training.

   b. On May 29, 1990, HCFA hosted a Computer Virus Symposium with speakers from IBM and NIST. Over 60 representatives from the Department attended.

c. From July 9 thru 13, 1990, a technical systems security training course was provided for Systems Security Officers. Twenty-three HCFA employees, including 7 regional office SSOs, attended.

d. In May, 1991 a microcomputer diskette, MicroSecure II, was distributed to HCFA Bureau/Offices for individual awareness training. This diskette is also available in the HCFA Individual Learning Center. The software covered topics such as:

- data security;
- computer crime;
- diskette security;
- data integrity; and,
- backup procedures.

Our goal is to ensure that all HCFA employees review this awareness material. To date 3123 employees have received this training.

e. In a general sense we have continually ensured that all HCFA ADP training courses address systems security so that personnel attending these courses will receive additional awareness training.

3. The policy and procedures in HCFA's systems security program apply to HCFA personnel and HCFA contractors. HCFA's policy is to implement and maintain a comprehensive ADP systems security program for ensuring the existence of adequate safeguards to protect personal, proprietary, and other sensitive data in automated systems and to ensure the physical protection of all HCFA ADP systems and facilities.

The Resource Access Control Facility (RACF) protects all disk and tape data files at the HDC. The "Hot Site" in Carlstadt, New Jersey provides back-up to the HDC in case of a disaster. HCFA maintains an inventory of sensitive systems that contain data for such purposes as identifiable personal information from records covered under the Privacy Act of 1974.

HCFA has developed and distributed a virus reporting procedure that includes the use of virus detection and eradication software purchased from McAfee Associates.

Information Resources Management

Health Care Financing Administration

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Chapter IV
Tactical IRM Plan
(FY 1993 - 1994)

CHAPTER IV
TACTICAL IRM PLAN
(FY1993-1994)

HCFA has developed the Tactical Information Resources Management (IRM) Plan to ensure that funds and energy are spent primarily to implement required legislative provisions and to support the Agency's three primary goals:

- o improve the quality of health care;
- o reduce administrative costs of its programs; and,
- o encourage the move to coordinated care arrangements.

The IRM support of these goals covers all areas of IRM -- the management and enhancement of equipment, services, information, and applications and also addresses the enhancing and reshaping of HCFA's workforce. The following IRM goals and strategies from the Strategic Plan form the framework for the specific tactical initiatives that HCFA developed to support the Agency's mission and goals.

GOAL/STRATEGY: Empower employees to perform their jobs more effectively through the Information Systems Empowerment Strategy.

GOAL/STRATEGY: Ensure that the move to single site does not interrupt service to HCFA agents or employees by acquiring a bridge CPU capacity, providing Local Area Network (LAN) topology, and developing single site systems.

GOAL/STRATEGY: Ensure that HCFA continues to have adequate IRM staffing or contractor support by recruiting and training HCFA staff, and supplementing Government staff with software development contractor support.

GOAL/STRATEGY: Ensure that HCFA maintains adequate automatic data processing (ADP) capacities to meet operational requirements for information processing.

GOAL/STRATEGY: Ensure that adequate ADP capabilities are available to support growth and development in HCFA's programmatic mandates and new information processing demand and initiatives by maximizing use of existing ADP facilities, implementing a capacity management and planning function, and by acquiring additional ADP capacity as needed.

GOAL/STRATEGY: Provide HCFA data to external users.

SECTION A
TACTICAL PLANNING ASSUMPTIONS

1. The Uniform Clinical Data Set System (UCDSS) will supply data for Peer Review Organization (PRO) analysis.

2. HCFA will initiate a comprehensive approach to improve management of the Medicaid program.

3. HCFA will award the Common Working File (CWF) maintenance contract.

4. HCFA will determine new strategies to improve Medicare claims administration services and reduce administrative costs.

5. HCFA will pursue the Information Systems Empowerment Strategy to capitalize on the PRISM database environment.

6. The operational environment will be impacted by technological changes. These changes will appear in two basic forms: technology which must be replaced due to obsolescence; and, emerging technology which can provide productivity improvements.

7. A high proportion of HCFA's technical staff will be eligible for retirement in the next few years and HCFA will receive authority to increase its staff size by five percent.

8. HCFA will award a major new contract for software development support.

9. HCFA will move to a single site in late FY 1994 and into FY 1995, install a new voice/data switch, install LAN topology, and establish a new computer center.

10. The Facilities Management Contract (FMC) and End User Computing (EUC) support contracts will expire in FY 1994 and require recompetition.

11. Some of HCFA's current processing platforms (e.g., the IBM 9370s) have or will become obsolete.

13. As HCFA components will be required to do more with less or to find ways to save money, they will turn increasingly to automation alternatives to help meet their needs.

14. HCFA will continue to provide significant support to the Department and the health care community for the Medical Treatment Effectiveness Program.

SECTION B
NEW MAJOR IRM INITIATIVES (MIIs) AND SUPPORTING IRM INITIATIVES (SIIs)

I. MAJOR IRM INITIATIVES

HCFA is submitting 4 new Major Information Resources Management (IRM) Initiatives (MIIs). The MIIs directly support two of the program goals and one of the IRM goals. The MII that relates to the IRM goal indirectly supports all program goals by enhancing the ability of the analysts and managers to manage their functions.

MII:
A Major IRM Initiative is a clearly distinguishable single, integrated project with a life-cycle cost that exceeds $5 million.

PROGRAM GOAL	MII
Ensure receipt of quality health care through the Health Care Quality Improvement Initiative (HCQII)	HCQII/Uniform Clinical Data Set System (UCDSS)
Enhance the efficient operation of Medicare and Medicaid and reduce administrative costs	National Integrated Medicaid Management System (NIMMS)
	Satellite Teleconferencing for State Survey Training
IRM GOAL	
Use technology to enable employees to perform their jobs more effectively	Information Systems Empowerment Strategy (ISES)

Attachment D contains the MII forms for these new initiatives.

II. SUPPORTING IRM INITIATIVES

HCFA is submitting six new Supporting IRM Initiatives (SIIs). Two of these SIIs relate directly to one of the program goals, Ensure the receipt of quality health care, and to the UCDSS MII. One relates to the MII, ISES. The final four relate to three IRM goals. They also indirectly support all program goals by providing software development support, a hardware platform, and facilities support to HCFA's information systems.

SII:
A Supporting IRM Initiative is a procurement initiative that will provide FIP resources to support an Agency's MIIs or programs.

MII	SII
HCQII/UCDSS	HCQII Support Services: o UCDSS abstraction software evaluation and refinements o The Patient Care Algorithm System (PCAS) of case selection o Analysis o Training the Clinical Data Abstraction Centers (CDAC)
ISES	End User Computing (EUC) recompetition
IRM GOAL	
Ensure that HCFA continues to have adequate IRM staffing or contractor support by recruiting and training HCFA staff, and supplementing Government staff with software development contractor support	Systems Analysis Design and Programming
Ensure that the move to single site does not interrupt service to HCFA agents or employees	Establish HCFA-wide LAN Connectivity
Ensure that adequate ADP capacities are available to support growth and development in HCFA's programmatic mandates and new information processing demand and initiatives	Facilities Management Contract (FMC) recompetition

Attachment E contains the SII forms for these supporting initiatives.

HCFA may submit an additional Agency Procurement Request (APR) to request services that support the first goal above, ensure that HCFA continues to have adequate IRM staffing or contractor support by recruiting and training HCFA staff, and supplementing Government staff with software development contractor support. The purpose of this APR would be to provide a contingency vehicle for software development support in the event that new legislation, new administrative, or new judicial mandates required immediate software development activity. In the past few years requirements of this type have diverted software development funds and contracting authority from planned internal projects to external mandates. Examples in the three areas from recent experience include:

- o Legislative -- Medicaid Drug Rebate Program;
- o Administrative -- the Medicaid Budget Estimating Initiative (BEI); and,
- o Judicial -- HCFA v. Provident Insurance Company Medicare Secondary Payer litigation.

Health Care Reform is a major political issue. HCFA expects some legislation soon whether it is in the form of a comprehensive package or in smaller pieces. Some examples of smaller proposals that HCFA components have included in their plans are:

- o establishing a user fee financed Survey and Certification Program for all 50,000 plus Medicare and Medicaid providers and suppliers;
- o adjusting or totally redesigning the current Drug Rebate System;
- o setting Medicare health insurance premiums based on income;
- o providing an incentive, through a cash premium rebate program, for beneficiaries to join risk coordinated care organizations;
- o setting a working aged rate cell for risk contracting organizations; and,
- o mandating the transmission of computerized patient records between hospitals, PROs, and health insurers.

We have not completed a Supporting IRM Initiative form for a contract for this work because the budget contains no request for funds to support unknown future requirements. HCFA plans to ensure that new legislation will include funding to implement its provisions. While such funding would not necessarily be part of a new administrative or judicial requirement, at least HCFA would have more flexibility if the contract vehicle to support these requests were in place.

SECTION C
MODIFICATIONS TO, AND PROGRESS ON, MAJOR IRM INITIATIVES

I. MIIs FROM PREVIOUS SUBMISSIONS

There are five MIIs from previous submissions that will require significant acquisitions during the FY 1993-94 timeframe. An update of the Medical Treatment Effectiveness Program (MEDTEP) initiative is also included. These relate to a number of HCFA's current goals.

GOAL	MII
Ensure receipt of quality health care and Provide HCFA data to external users	Medical Treatment Effectiveness Program
Enhance the efficient operation of Medicare and Medicaid and reduce administrative costs	Maintenance contract for the Common Working File (CWF)
Ensure that the move to single site does not interrupt service to HCFA agents or employees	Single Site Communications Acquisition
	Single Site HCFA Data Center Transition
Ensure that adequate ADP capacities are available to support growth and development in HCFA's programmatic mandates and new information processing demand and initiatives	HCFA Data Center Capital Improvements

Attachment F provides more detailed updates on these initiatives.

II. MODIFICATIONS TO FY 1992 AND FY 1993 PLANS

HCFA has revised its plans for the following projects:

A. Database Access Initiative.

ISES is replacing the Database Access Initiative. ISES also includes one of FY 1993's alternative initiatives, Automating Text Management (ATM).

B. Hardware Acquisitions for the HCFA Data Center.

HCFA has revised its growth projections for the HCFA Data Center (HDC). Based on capacity analysis, the Agency will need to acquire additional data center capacity prior to the move to the single site. For that move, HCFA plans to buy a third CPU and peripheral equipment to establish a bridge and excess the older CPU after moving its workload to the new site. The two sets of acquisitions are described in updates to MIIs from previous submissions -- the Single Site HCFA Data Center Transition MII and the HDC Capital Improvements MII.

III. FY 1992 TACTICAL PLAN ACCOMPLISHMENTS

A. PRISM

- Redesigned the Medicare Enrollment Software. The Enrollment Database Workbench provides query and reporting capabilities against enrollment files and a standard programmer toolset.

- Implemented Menu-driven Access to 100 percent Near-line Claims Files (MANRLINE), a comprehensive data storage and retrieval mechanism that provides access to 100 percent of all Medicare claims in the National Claims History file.

- The Access to the National Claims History Repository (ANCHR) system provides structured access to and retrieval from the online utilization databases.

- Implemented Phase I of the Personnel History system; initiated a pilot of the New Time and Attendance System (NTAS); implemented the Financial Accounting and Control System CORE and Accounts Payable systems on the IBM 3090.

B. Medical Treatment Effectiveness Program

- Implemented a system for tracking the Agency for Health Care Policy and Research HDC costs by Patient Outcome Research Team.

C. Common Working File (CWF)

- Completed the technical evaluation of the CWF maintenance (CWFM) contract proposals.

- Evaluating CWF Independent Validation and Verification (IV&V) contract proposals.

D. Single Site Communications Acquisition

- o Will release the Request for Procurement as soon as the General Services Administration announces the site location.

E. Single Site HCFA Data Center Transition

- o Evaluated alternative move scenarios and decided to acquire bridge equipment for the single site migration.

F. Automating Text Management (ATM)

- o Implemented a pilot project to distribute Program Manuals, pertinent portions of the Code of Federal Regulations (CFR), and titles within the Social Security Act on CD-ROM. A wide audience consisting of central office, regional office, and HCFA's contractor and provider community will receive a fully updated CD-ROM on a monthly basis. The projected date for receipt of the initial pilot disc from the Government Printing Office is July 23, 1992.

IV. OTHER FY 1992 ACCOMPLISHMENTS

During FY 1992, new priorities compelled HCFA to begin several important Administrative initiatives with IRM implications that were not described in the FY 1993 submission. These are presented below related to the goal that each supports:

A. Improve the quality of health care

- o Initiated the Health Care Quality Improvement Initiative (HCQII) through which Peer Review Organizations (PRO) will analyze clinical data obtained from a sample of hospital discharges. This approach shifts PRO emphasis from the review of isolated cases to the analysis of patterns of care and outcomes.

- o Determined the overall requirements of the Clinical Laboratory Improvement Amendment of 1988 (CLIA 88), and instituted a plan of action to satisfy those requirements.

- o Received final data tapes for Round 1 interviews from the Medicare Current Beneficiary Survey. Release of Round 1 public use tape file scheduled for end of 1992.

B. Reduce administrative costs of its programs

- Designed The Initial Enrollment Questionnaire (IEQ) to provide a single source for collecting information on Medicare Secondary Payer from enrolling beneficiaries.

- Prepared an analytical outpatient hospital database; developed and released the Interns and Residents Information System software; developed and implemented the Skilled Nursing Facilities (SNF) Data Support System.

- Revised and released the mainframe PRICER which incorporated FY 92 Prospective Payment System (PPS) changes.

- Developed the data and analyses used to support the final rule for the Medicare Fee Schedule (MFS). Forwarded to each carrier a file adjusted by their geographic practice cost indices. Developed analytical tables for reports to Congress *re.* monitoring beneficiary access and changes in physician participation rates.

- Completed the development of the system to provide End Stage Renal Disease (ESRD) Networks direct access to Program Management and Medical Information System (PMMIS) files.

- Implemented the Physician Ownership and Compensation Interest (POCI) project as required by the Omnibus Budget Reconciliation Act (OBRA) of 1989. POCI reports physician ownership/investment and compensation arrangements between physicians and their families with selected health care entities.

- Developed the Medicaid Budget Estimating Initiative to respond to a need identified by a joint Department of Health and Human Services/Office of Management and Budget task force. Their report focuses on the wide variance between estimated and actual increases in the costs of the Medicaid program. The Initiative will improve the quality and consistency of future estimates. Released a Medicaid State Profile report profiling each State by State Administration, Eligibility, Service Coverage, and Reimbursement methods and rates.

- Began acquisition of a Satellite Teleconferencing Facility for State Survey Training. This facility will provide live, real-

time training across the spectrum of providers and suppliers and faster as well as more consistent communication to States and regional offices on the interpretation and application of regulations.

C. Encourage the move to coordinated care arrangements

- o Stabilized the Group Health Plan system and implemented major new capabilities, including Medicaid adjustments, state and county code adjustments, and the Plan Profile Report.

- o Prepared the Adjusted Annual Per Capita Cost rates for 1993 and the premium rate modifications.

D. Improve the management of HCFA's Federal Information Processing Systems (FIPS) resources

- o Reorganized the Bureau of Data Management and Strategy to parallel the new information architecture created through PRISM.

- o Established a capacity management program to ensure that current and future Agency needs are met. Developed a proposal for a new Resource Accounting System to embody not only fee-for-service at the HCFA organizational level, but also FIPS resources accountability at the application systems level.

- o The Computerized Patient Records (CPR) project proposes an electronic network linking physicians, hospitals and insurers. All patient information would flow along this network. Under one scenario, each patient would carry a wallet-sized "smart card" to provide access to his records in the network. There are three task forces working on this effort: the Task Force on Patient Information, the Workgroup on Electronic Data Interchange, and the Workgroup to Analyze Administrative Cost.

SECTION D
MAJOR TACTICAL ISSUES

Since the largest internal acquisitions in this plan are related to the move to a single site, the unknown factors of this move create some uncertainty about specifics for these acquisitions. We based the timing of both the voice/data telecommunications switch and the bridge equipment for the new data center on the physical move beginning in late 1994/early 1995. This schedule depends on the acquisition and construction of the facility running smoothly. Serious delays in either of those milestones may affect the timing of our planned acquisitions.

The physical layout of the single site is a further unknown. There are two very different possibilities:

1. A multi-building campus setting, and

2. A single high rise building.

The cabling requirements for local voice and data communications will vary significantly depending on the selected option. The General Services Administration (GSA) will decide on the location of the Single Site in August 1992. After this decision, HCFA will refine its move plans.

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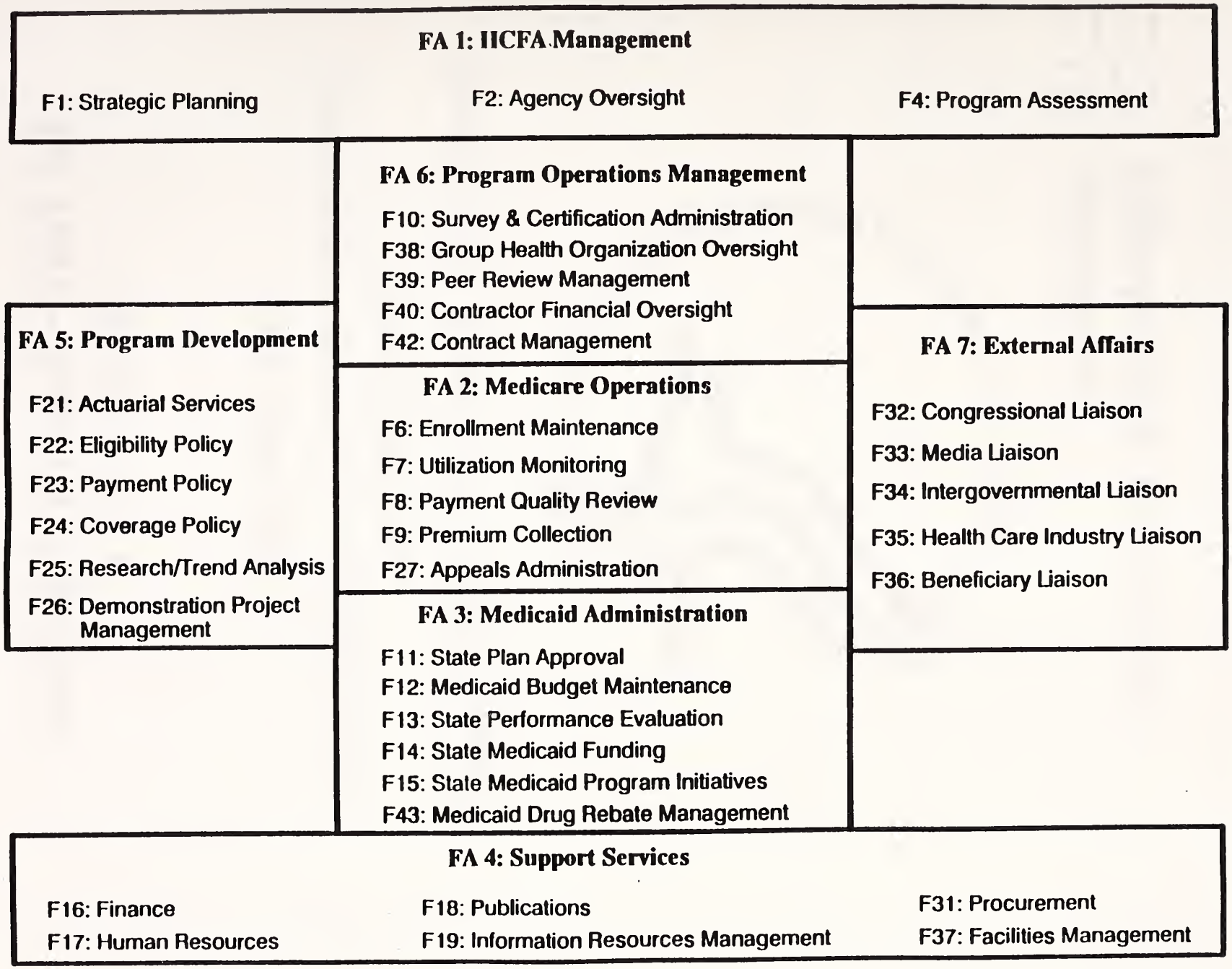
Attachment A
HCFA Function Model

HCFA Function Model



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Attachment B
FY 1994 - 1998 IRM Projects

FY 1994 – 1998 IRM REQUESTS

Function Mod. No.	Goal No.	Strategy No.	Object. No.	Project Title	Requested By	BDMS Office	Comments
FA1	PG 1	S 1	O 1	Computerized Patient Medical Records	OLP	OIRM	FY 2000 Implementation
F25	PG 2	S 2	O 2	HCQII	HSQB	OIRM	PRO 4th Scope of Work
F39	PG 2	S 2	O 2	UCDSS	HSQB	OPS	
F39	PG 2	S 2	O 2	CO/RO/PRO Communications	HSQB	OIT	
F39	PG 2	S 2	O 2	Monitor PRO/CDAC Performance	HSQB	OCO	
F25	PG 2	S 2	O 3	Post-hospital Outcome Studies	ORD	OSDM	
F21	PG 2	S 2	O 3	Current Beneficiary Survey	OACT	OES	
F25	PG 2	S 2	O 3	Health Status Registry	ORD	OSDM	
FA5	PG 2	S 2	O 3	Support Policy Studies	BPD	OSDM	
F39	PG 2	S 2	O 3	Patterns of care/outcome modeling	HSQB	OCO	
F25	PG 2	S 2	O 3	Access to care research	ORD	OSDM	
F23	PG 2	S 3	O 4	PPR Refinement	BPD	OSDM	OBRA 89
F 8	PG 2	S 3	O 4	IRIS	BPO	OSDM	
F14	PG 2	S 3	O 4	Monitor Medicaid Physician Payment Rates	MB	OPS	
F13	PG 2	S 3	O 4	Monitor Ob/Ped Participation Rates	MB	OPS	OBRA 89
F42	PG 2	S 3	O 4	UPIN-Directory Update	BPO/MB	OSDM	OBRA 90
F42	PG 2	S 3	O 4	POCI	BPO	OSDM/OPS	CLIA 88
F10	PG 2	S 3	O 4	Link Sanction/Ownership Data	HSQB	OPS	CLIA 88
F25	PG 2	S 3	O 4	Perform Data Quality Studies	OACT	OSDM	
F23	PG 2	S 3	O 5	Develop AAPCC Rates	OACT	OSDM	
F23	PG 2	S 3	O 5	PPS Pricing -- inpatient hospital rates	BPO	OSDM	
F10	PG 2	S 3	O 5	Satellite Teleconferencing	HSQB	OBA	
F25	PG 2	S 3	O 5	Hospital Mortality/Information Report	HSQB	OSDM	no submission
F10	PG 2	S 3	O 5	Monitor Proficiency Testing (PT)	HSQB	OPS	CLIA 88 & OBRA 87
F10	PG 2	S 3	O 5	Track PT for Cytology/Pathology	HSQB	OPS	CLIA 88 & OBRA 87
F10	PG 2	S 3	O 5	Support HHA Accreditation	HSQB	OPS	CLIA 88 & OBRA 87
F10	PG 2	S 3	O 5	SNF/NF Severity of deficiency	HSQB	OPS	CLIA 88 & OBRA 87
F10	PG 2	S 3	O 5	Develop Nursing Home Database	HSQB	OPS	CLIA 88 & OBRA 87
F10	PG 2	S 3	O 5	Link MEASURES/ODIE	HSQB	OPS	
F10	PG 2	S 3	O 5	Mammography Screening Survey/Cert	HSQB	OPS	OBRA 90
F25	PG 2	S 3	O 5	Nursing Home Quality Demo	ORD	OPS	
F15	PG 2	S 3	O 5	Monitor Community Based Services	MB	OPS	
F10	PG 2	S 3	O 5	Support Survey/Cert User Fee	HSQB	OPS	
F25	PG 2	S 3	O 5	ESRD Research	ORD	OSDM	

FY 1994 – 1998 IRM REQUESTS

Function Mod. No.	Goal No.	Strategy No.	Object. No.	Project Title	Requested By	BDMS Office	Comments
F25	PG 2	S 3	O 5	ESRD Cost Data added to USRDS Studies	ORD	OSDM	
F10	PG 2	S 3	O 5	Monitor accrediting organs and States	HSQB	OPS	
F43	PG 2	S 3	O 6	Develop Federal Upper Limits for Drugs	MB	OPS	OBRA 90
F43	PG 2	S 3	O 6	*Change Drug Rebate System for New Law*	MB	OPS	Not in current law
F25	PG 2	S 4	O 7	Support AHCPR -- PORTS	EXT	OSDM	OBRA 89
F25	PG 2	S 4	O 7	Support AHCPR -- pain management	EXT	OPS	DHHS Guidelines
F42	PG 3	S 5	O 8	Medicare Transaction System Initiative	BPO	BPO	Medicare Contractor Function
F 9	PG 3	S 5	O 9	Electronic premium collection	BPO	OES	
F 9	PG 3	S 5	O 9	*Premium Collection IRS Data Match*	BPO	OES	Not in current law
F 6	PG 3	S 6	O10	MSP-IEQ	BPO	OES	Social Security Act
F 6	PG 3	S 6	O10	MSP-Data Matches	BPO	OES	OBRA 89
F 6	PG 3	S 6	O10	MSP-Spousal Data Base	BPO	OES	NEW
F 6	PG 3	S 6	O10	MSP-GHI Contract Support	BPO	OPS/OES	
F 6	PG 3	S 6	O10	MSP-CWF Reports	BPO	OPS/OES	
F 6	PG 3	S 6	O10	MSP-Litigation Keying and System	BPO	OPS/OES	NEW
F 6	PG 3	S 6	O10	MSP-Other Payer Registry	BPO	OPS	NEW
F 8	PG 3	S 6	O10	Part A Pricing Modules	BPO	OSDM	
F 8	PG 3	S 6	O10	Part A Medical Review and RHHI	BPO	OSDM	
F 8	PG 3	S 6	O10	Part A Billing Tables	BPO	OPS	
F 8	PG 3	S 6	O10	Part B Medical Review	BPO	OSDM	NEW
F42	PG 3	S 6	O11	CROWD Profiles, Perform. Indicators	BPO	OPS	
F40	PG 3	S 6	O11	CAFM Enhancements	BPO	OPS	
F42	PG 3	S 6	O11	CWF Communications Support	BPO	OPS	
F40	PG 3	S 6	O11	CASR Enhancements	BPO	OPS	
F42	PG 3	S 6	O11	SADBUS Enhancement	BPO	OPS	
F42	PG 3	S 6	O11	CSTP Changes	BPO	OPS	
F42	PG 3	S 6	O11	ISTP	BPO	OPS	
F42	PG 3	S 6	O11	FQA	BPO	OPS	NEW
F42	PG 3	S 6	O11	CWF QA	BPO	OPS	
F42	PG 3	S 6	O11	Part B QA Enhancements	BPO	OPS	
F42	PG 3	S 6	O11	Part B Medicare Claims Audit	BPO	OPS	NEW
F 8	PG 3	S 6	O11	POR/PSOR Enhancements	BPO	OPS	
F42	PG 3	S 6	O11	Contractor Identification System	BPO	OPS	NEW
F42	PG 3	S 6	O11	Medicare benefit payment Financial Statements	BPO	OPS	Chief Financial Officers Act

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Function Mod. No.	Goal No.	Strategy No.	Object. No.	Project Title	Requested By	BDMS Office	Comments
F42	PG 3	S 6	O11	Annual Medicare Carrier Physician Performance Srvy	BPO	OPS	Chief Financial Officers Act
F42	PG 3	S 6	O11	Annual Medicare Carrier Beneficiary Perfrmnce Srvy	BPO	OPS	NEW
F42	PG 3	S 6	O11	Supplier Reenrollment	BPO	OPS	NEW
F 6	PG 3	S 6	O11	MEDIGAP-link HCFA/NAIC/State Data	BPO	OPS	Social Security Act
F27	PG 3	S 6	O11	Appeals Disputes Process	BPO	OPS	NEW
F25	PG 3	S 6	O11	Regulations Impact Analysis	BPD	OSDM	
F27	PG 3	S 6	O11	Appeals Decision Database	BPO	OPS	NEW
F13	PG 3	S 7	O12	MEQC Restructuring	MB	OPS	
F11	PG 3	S 7	O13	Automate State Plans	MB	OPS	Budget Estimating Initiative
F11	PG 3	S 7	O13	Collect State Plan Amendment Data	MB	OPS	Budget Estimating Initiative
F13	PG 3	S 7	O14	Medicaid Claims History	OPS	OPS	Budget Estimating Initiative
F13	PG 3	S 7	O14	Medicaid Tape-to-Tape	ORD	OPS	
F15	PG 3	S 7	O14	*Implement Health Reform*	MB	OPS	Not in current law
F38	PG 4	S 8	O15	PRO Survey of HMOs	HSQB	OES	
F38	PG 4	S 8	O15	Disenrollment Survey	OPHCOO	OES	
F38	PG 4	S 9	O16	Coordinated Care Studies	OPHCOO	OES	
F25	PG 4	S 8	O15	Coordinated care research	ORD	OES	
F 6	PG 4	S 8	O16	Managed Care Enrollment	OPHCOO	OES	
F38	PG 4	S 8	O16	HMO Risk Sticker	OPHCOO	OES	
F38	PG 4	S 8	O16	*Managed Care Rebate*	OPHCOO	OES	Not in current law
F38	PG 4	S 8	O16	*Working aged rate cell*	OPHCOO	OES	Not in current law
F15	PG 4	S 9	O17	Provide Medicare HMO Data to States	MB	OES	
F15	PG 4	S 9	O17	Collect Medicaid Managed Care Data	MB	OPS	
F38	PG 4	S 9	O18	HMO On-site Review	OPHCOO	OPS	Title XIII of PHS Act
F38	PG 4	S 9	O18	Monitor RO Oversite of HMOs	OPHCOO	OPS	
F23	PG 4	S 9	O18	Rate Setting/Cost Report Settling	OPHCOO	OPS	
F38	PG 4	S 9	O18	HMO Fiscal Soundness	OPHCOO	OPS	
F23	PG 4	S 9	O18	ACR Review	OPHCOO	OPS	
F38	PG 4	S 9	O18	Beneficiary Reconsideration Contract	OPHCOO	OPS	
F38	PG 4	S 9	O18	Enhance current HMO Systems	OPHCOO	OPS/OES	
FA5	IG 1	S 1		Replace Legis-Late for CFR	BPD	OIT	
F17	IG 1	S 1		Reorganize Personnel Data for EOO	EOO	OIT	
F38	IG 1	S 1		HMO Access to manuals	OPHCOO	OIT	
FA5	IG 1	S 1		Centralized Policy Database	BPD	OIT	

FY 1994 – 1998 IRM REQUESTS

Function Mod. No.	Goal No.	Strategy No.	Object. No.	Project Title	Requested By	BDMS Office	Comments
F27	IG 1	S 1		Store and distribute PRRB Data electronically	PRRB	OIT	
F17	IG 1	S 1		Establish EOO Historical File	EOO	OIT	
F26	IG 1	S 1		Grant Tracking	ORD	OIT	
FA5	IG 1	S 1		Automate Medicaid Policy Issuance	MB	OIT	
FA5	IG 1	S 1		Electronic Regulations distribution	BPD	OIT	
FA5	IG 1	S 1		Electronic distribution of research data	OIRM	OIT	
F26	IG 1	S 1		ORD Data Entry (continuation)	ORD	OIRM	
F17	IG 1	S 1		Download Personnel Data to PCs	EOO	OIT	
FA5	IG 1	S 1		Regulations Status Report	BPD	OIT	
F27	IG 1	S 1		PRRB MIS	PRRB	OIT	
FA4	IG 2	S 5		Conversion of FACS to COBOL II	OBA	OIT	
FA4	IG 2	S 5		Property Management System Barcode	OBA	OIT	
FA4	IG 2	S 5		Financial Systems Analysis	OBA	OIT	
FA4	IG 2	S 5		Printing & Paper Stock Mgmt System Redesign	OBA	OIT	
FA4	IG 2	S 5		FACS CORE and AP Enhancements and Maintenance	OBA	OIT	
FA4	IG 2	S 5		PPSM System Enhancements and Maintenance	OBA	OIT	
FA4	IG 2	S 5		Online Status of Funds	OBA	OIT	
FA4	IG 2	S 5		Single Site Projects	OBA	OIT	
FA4	IG 2	S 5		Electronic Interfaces for Financial Management	OBA	OIT	
FA4	IG 2	S 5		CATCS Improvements	OBA	OIT	
FA4	IG 2	S 5		FACS ARC Enhancements & Maintenance	OBA	OIT	
FA4	IG 2	S 5		Convers of Comprehensive Personnel Sys to APSY	OBA	OIT	
FA4	IG 2	S 5		Travel Management	OBA	OIT	
FA4	IG 2	S 5		Update Compreh Prsnl System fm Dept IMPACT File	OBA	OIT	
FA4	IG 2	S 5		Implement New Time and Attendance System	OBA	OIT	
FA4	IG 2	S 5		Compreh Personnel Sys History Files & Queries	OBA	OIT	
FA4	IG 2	S 5		Grants Management	OBA	OIT	
FA4	IG 2	S 5		Conversion of Compreh Prsnl Sys Security Profile	OBA	OIT	
FA4	IG 2	S 5		Budget Management	OBA	OIT	
FA4	IG 2	S 5		Electronic Administrative Manuals	OBA	OIT	
FA4	IG 2	S 5		Agency-wide Financial Statement	OBA	OIT	
FA4	IG 2	S 5		Property Management System Redesign	OBA	OIT	
FA4	IG 2	S 5		FACS LOC Enhancements & Maintenance	OBA	OIT	
FA2	IG 2	S 5		Executive Correspondence (Storage	OBA	OIT	

FY 1994 – 1998 IRM REQUESTS

Function Mod. No.	Goal No.	Strategy No.	Object. No.	Project Title	Requested By	BDMS Office	Comments
FA5	IG 2	S 5		Regulations Tracking System Redesign	OEO&BPD	OIT	
F 6	IG 5	S11		Support SSA -- Access to BCM	EXT	OES	

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

Attachment C
HCFA IRM Matrix

INFORMATION ARCHITECTURE

CURRENT RESOURCES	RECENT ACCOMPLISHMENTS	CURRENT DIRECTIONS, NEW DIRECTIONS, AND STANDARDS
		MSP Activities -- SSA/IRS/VA/DOL/OPM/CHAMPUS/USPS Data match; spousal employment data; IEQ
Medicare Beneficiary Data - Eligibility and Demographic Data	EDB	
- Utilization Data (claims)	NCH	Additional beneficiary data to be collected through the UCDS System and the Current Beneficiary Survey
- Medical/Clinical Information		MEDIGAP
- Other Payers		Other Payer Registry
- GHP beneficiaries data		
Provider Data	Hospital Mortality	CLIA labs & PT Data
- Institutional Survey/ Certification Data	UPIN	PPS for OP facilities, etc
	Physician Ownership Data	Mammography Screening
- Institutional Cost Reports	SNF Cost Report Data	Nursing Home Resident Assessment
		Supplier Registry
- Non-Institutional Provider Characteristics		Intern/Resident HHA Facility
Contractor Data		DME Regional Carrier
- Performance Data		Contractor IDs
- Budget and Expenditures		PRO HMO Samples
		Performance Surveys
- Workload Data		
- Group Health Plan Characteristics		
Medicaid Data	Medicaid Drug & FUL Data	Medicaid Claims
- Medicaid Eligibility, Recipient, Utilization, and Expenditure Data	State Plan Data	State Manage Care Encounters
		Medicare enrollment to States
- Medicaid Budget Data		
- Medicaid Quality Control Programs Data		
Administrative Data	Employee History File	Single site (library, guards,etc)
- Financial Accounts		
- Employee History		
- Correspondence		
- Property		
- Warehousing		

INFORMATION SYSTEMS

Manage Medicare Beneficiary Enrollment	Enrollment Database Workbench	Full implementation of integrated enrollment datbases
	Plan Profile Report	
	McCoy	MSP Systems
		MEDIGAP Systems
		Distribute CAST/BEST on optical disks
		Provide online enrollment data to SSA
Maintain National Claims History	ANCHR	Establish systems for UCDS
	MANRLINE	Patterns of care/outcome studies
	CWF transmission of 100% claims data	
Monitor Provider Activities	OSCAR	Link Sanction/Ownership
	POCI	CLIA 88 Systems
	Hospital Mortality Analysis	Surveyer Satellite Training
	UPIN	Link Measuers/ODIE
	IRIS	HHA Accreditation
	Physician Payment Reform	Establish Systems for Resident Assessment data
	Prospective Payment Updates	
Manage Contractor Activities	CROWD	Functional Quality Assurance
	CASR	Coordinate carrier/PRO reviews
	CAFM	Part A/B Medical Reviews
	CSTP	
	ISTP	
	Overpayment Recovery Systems	
Administer the Medicaid Program	Drug Rebate System	National Medicaid Claims History
	SPdata	Monitor physicians
		Restructure MEQC
Manage Agency Resources	FACS	Develop Single Site Systems
	CORE/AP	Redesign Property Management
	CATCS Expansion	Implement Letter of Credit
	Personnel History	Expand Personnel History
		Pilot distributed Time & Attendance
		Implement Accounts Receivable

TECHNICAL ARCHITECTURE

TECHNICAL ARCHITECTURE	RECENT ACCOMPLISHMENTS	CURRENT DIRECTIONS, NEW DIRECTIONS, AND STANDARDS
PRIMARY COMPUTER PROCESSING FACILITIES		
IBM 3090-500E	Processed approximately 90,000 batch jobs and 27,000 individual sessions per month on mainframe operations.	Upgrade in FY 1994 as bridge to single site HDC supports more than 7,000 users involved in the Medicare Decision Support System, Medicaid Statistical Information System, program management systems, and administrative systems. These users include a number of organizations external to HCFA that are required to interact with HCFA's data on a daily basis.
IBM 3090-600S	Installed in early FY 1991	Capacity Management and Planning Project Single Site Bridge Computer
1.0 terabytes (TB) DASD		
6 Storage Technology tape cartridge systems	Automate tape mounting	
2 Uninterruptable Power Supply (UPS) systems		HDC Disaster Recovery Plan - testing is performed at the "Hot Site" in Carlstadt, New Jersey, which would become the temporary location to support HCFA's ADP and data communications operations should a disaster befall the HDC.
WORKSTATIONS AND SERVERS		
3,700 microcomputers (micros)	Over 1,800 micros installed in FY 1990 throughout the Agency Replaced all Central Office 860 Word Processors	Technological Empowerment Recompete EUC contract CD-ROM text database ditribution
12 9370 minicomputers (minis) (two in Central Office and one in each Region).	Converted the Agency E-Mail system from the Series I to the 9370 minis Completed the installation of a base level of PROFS throughout the Regional Offices and instituted several pilots within Central Office.	Continue to implement processing standards for all Agency minis Reevaluate e-mail 9370 evaluation
A small number of MacIntosh installations		Utilized to support graphics and desk top publishing functions.

COMMUNICATIONS

Over 90 dedicated SDLC lines and approximately 100 host dial-up lines.	Number of online HDC users increased from 5,500 to 7,000 during FY 1992	
IBM 3270 or compatible terminals utilizing IBM's system network architecture protocol.		
Northern Telecom, Inc. (NTI) switch		Will replace NTI switch competitively for single site
Approximately 3,000 HCFA voice stations		Users have access to features such as call transfer, call hold, queuing, call pick-up, call forwarding, speed dialing, and 3-way conference
2 HYPERchannels to NCC		Access to SSA's NCC is supported by SSA's National Network which is operated under IBM's Systems Network Architecture (SNA)/Synchronous Data Link Control (SDLC) protocol.
IBM Information Network (IIN) VAN services via the National Library of Medicine (NLM)	Established host communication links with all satellite sites for the Common Working File (CWF)	This VAN provides uniform communications between the HDC and Medicare contractors, CWF sites, HCFA regional offices, Peer Review Organizations, and State agencies.
	Completed the national implementation of Network Data Mover (NDM) mainframe communications software in support of CWF.	Migrate to the FTS-2000 Network as this service becomes available.
	Waiver received for immediate FTS-2000 migration	
17 LANS with 643 users		LAN Topology strategy for single site

COMMON USE SOFTWARE PRODUCTS

WordPerfect, Lotus, dBase, TIMELINE, and PRO-COMM+ software.		Approximately 60 different microcomputer programs are also available for specialized use.
About 100 mainframe software packages used at HDC	Conducted mainframe classes in Datamanager; Model 204, and SAS.	Evaluate HCFA DBMS needs

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

Attachment D
Major IRM Initiatives

MAJOR IRM INITIATIVES

OPDIV: HCFA

TITLE: Health Care Quality Improvement Initiative (HCQII)

MII ID: HCF-94-1 DATE: 6/22/92

DESCRIPTION/PURPOSE:
HCFA has initiated the Health Care Quality Improvement Initiative (HCQII) with a focus on reinforcing the PRO program to a more systematic approach for assessment of the quality of health care received by Medicare beneficiaries. HCQII fosters a shift of Medicare quality improvement activities from the review and action at the individual case level to surveillance of patterns of care and resulting outcomes which hereafter is referred to as pattern analysis.

PROs currently perform review for a sample of individual cases, primarily hospitalizations, in order to make a determination regarding whether the care was reasonable, necessary, timely, adequate, and complete. The tools currently used by PROs to arrive at these decisions are limited to the judgment and experience of each individual reviewer (usually nurses) under the traditional PRO review approach. Since prior formal training, practical experience, and application of knowledge varies from person to person, the results of the review could be inconsistent. HCFA has analyzed the deficiencies of the current approach and determined that the PROs would be more effective if HCFA provided them with the epidemiologic skills and data analysis tools required to support pattern analysis. These tools would enable them to perform a more scientific assessment of the quality of the health care for the Medicare cases they review.

The emphasis of HCQII is to identify patterns of care that can be improved and then provide the education and guidance necessary to improve them without a need to assign blame when it is determined that current care is substandard. Thus the overall HCQII goal is measurable improvements in overall patterns of care and the resulting outcomes of the care provided. PRO pattern analysis is perceived to be the basis for supporting the need for ongoing education and guidance to the various medical specialty groups and providers of service to Medicare beneficiaries. In summary, the ultimate goal of the HCQII is to help health care providers improve the mainstream of care through the promulgation of practice guidelines. From a general programmatic perspective, current review practices will fundamentally change, including:

- giving PROs explicit, nationally uniform criteria with which to examine patterns of care and patterns of outcomes;
- focusing review on observable patterns of care and outcomes differences rather than on unusual episodes of care that are statistical outliers; and,
- providing these patterns to providers so that they may conduct more

intrusive, detailed studies.

The data for PRO analysis will primarily be drawn from the Uniform Clinical Data Set (UCDS) which is the most important output generated by a HCFA developed software system referred to hereafter as the UCDS System (UCDSS). The UCDSS will provide detailed clinical information on a statistically determined sample of Medicare inpatient discharges.

The UCDSS-supported PRO review will be phased-in over several years with a 10 percent sample level of short-stay inpatient hospital discharges (approximately 1 million records) being processed in the third, fourth, and fifth years of operation. During the first year, it is planned that the UCDSS will be implemented to support the Cooperative Cardiovascular Project (CCP) involving approximately 300,000 medical records for the period April 1 to December 31, 1993. The number of records involved with the second year of operation will increase proportionately vis-a-vis the phase-in strategy. Traditional PRO case review at the level specified by each HCFA contract will be performed along with the UCDSS-supported reviews until a determination is made regarding the reliability of the UCDSS.

Throughout the phase-in for the UCDSS there will be a requirement for ongoing fine tuning and assessments due to the leading-edge methodology being employed and general complexity of the process as well as the ever changing health care delivery approaches. For example, a subsystem of the UCDSS referred to as the Patient Care Algorithm System (PCAS) utilizes about 1,000 decision rules to identify possible deviations from standard medical care. Each UCDSS case reviewed is compared against the decision rules to determine if proper care was provided and/or to identify cases requiring individual PRO physician review in a more uniform and reliable way versus the traditional nurse review approach. Therefore, the PCAS must be clinically accurate and analytically sound and, thus, will be subjected to an ongoing public and HCFA process of quality appraisal and refinement.

As a result, a supporting IRM initiative called HCQII Support Services is included which will be necessary to foster the UCDSS refinement activities, support training requirements, and ongoing analysis of the system from both a global and day-to-day perspective. Also, appropriate information has been provided for the proposed Clinical Data Abstraction Centers (CDAC) which will perform the medical record data entry and abstraction services using the UCDSS capability provided by HCFA. Since HCQII is largely dependent upon the consistency of the UCDS data abstraction, the use of specialized centers (CDAC) will support improved consistency, reliability, and timeliness of the data abstraction process rather than having abstraction performed by the 53 separate PRO organizations.

JUSTIFICATION:
The current approach (case-by-case review of individual medical records, using intuitive local clinical criteria) is costly, compartmentalized, and confrontational.

Most importantly, it inhibits meaningful change in provider and practitioner behavior. New conceptual approaches to quality assurance offer not only the promise of increased cost effectiveness, but also the opportunity for the PRO program to make a profound contribution to the improvement of care provided to Medicare beneficiaries.

As cited in the "Description/Purpose" section, HCQII will support the collection and analysis of health care episodes in a format that will augment PRO pattern analysis and outcome studies. The PROs have traditionally used hospital discharge data to conduct surveillance and to select cases for review. Since the UCDS will make detailed clinical information available to the PROs, planned HCFA activities will also reinforce the process by providing integrated access to the HCFA National Claims History (NCH) file. The NCH consists of claims for all services paid by Medicare. Dynamic access to the data will further reinforce the overall HCQII pattern analysis activities. The NCH file includes all types of claims for all services paid for by Medicare. The payment information is immediately available for PRO access the day after payment has been rendered. The PROs and HCFA can use the NCH and UCDS to identify frequent conditions, procedures, and practice styles that vary substantially from guidelines thus saving program expenditures and easily implementing systemic revisions. Initially, the UCDS record will be used for the PCAS to select cases for PRO physician review, but as HCFA builds a centralized UCDS database PROs will be able to access the data as a baseline for comparison purposes. For the first time, PROs will have access to baseline clinical data along with NCH-type data that can be used to monitor quality of care and perform risk-adjustment outcome studies more scientifically. The UCDS will support HCFA's analysis of the PCAS case selection criteria to identify more quickly where refinements could result in potential program savings.

The HCQII Support Services activity will provide the PROs with the necessary epidemiologic skills and capabilities to perform these analyses. The analysis of NCH and UCDS data requires some sophistication and HCFA is developing curriculum for PROs and providers to help them carry out these analyses and/or interpret the data they receive. HCQII will provide the PROs with the capability to monitor outcomes which is the critical complement for monitoring care received by Medicare beneficiaries. The HCQII will result in positive program decision-making and cost-cutting efforts since the PROs and HCFA will have access to all the data required to validate the process. Focusing exclusively on care ignores the clinical bottomline, and focusing only on outcome information does not inform providers about problem with their current practice style.

INFORMATION MANAGEMENT CONSIDERATIONS:

The primary goal of the HCQII is to move from dealing with individual clinical errors to helping the providers to improve the overall responsiveness of care. HCQII reinforces the PRO review activities by providing automated tools to collect a standard set of data about each hospitalization, subject that data to an expert system, and provide to the physician reviewer a case summary that reflects

the specific areas which are being questioned and will also highlight the issue(s) that needs to be addressed.

HCQII ensures that more precision, consistency, and program-responsiveness will be integrated into the review process. Identical protocols in each State will select cases for physician review, thus eliminating the differences in PRO review results attributable to individual reviewers' judgment. HCQII also provides the capability for integrating the UCDS data with other Medicare data files to enable PROs to perform detailed longitudinal analyses. This is expected to yield rich information about the effectiveness of different medical interventions and may lead the PRO program away from the performing case-by-case review and toward a broad-based epidemiologic analysis of health care paid for by the Medicare Program.

In accordance with the requirements of the Privacy Act of 1974, HCFA has established a new system of records under the overall HCQII initiative, UCDS, system # 09-70-1516. HCFA published all portions of the UCDS for comment, although the Privacy Act requires only that the "routine uses" portion of the system be made available for review and comment.

INFORMATION SECURITY:

Confidentiality of medical records must be maintained in accordance with Section 1160 of the Social Security Act. This section describes prohibitions against disclosure of information regarding beneficiaries and practitioners. HCFA will collect only information that is necessary to perform the HCQII activities. Information disclosure from the system will be made in accordance with the PRO statute.

Contractors also must demonstrate appropriate security safeguards to ensure compliance with the requirements of OMB Circular A-130, Management of Federal Information Resources; HHS Automated Information Systems Security Program Handbook; HCFA AIS Guide, g:0805-1, "Systems Security Policies;" and the Privacy Act.

At the location where HCQII software or records will be maintained, HCFA ensures the buildings will be secure and areas accessible only to authorized personnel. Magnetic media records will be located in locked and secure cabinets and the online system may only be accessed by using a password. In addition, all magnetic files will be safeguarded in accordance with provisions of HHS' ADP Systems Manual, Part 6 "ADP Systems Security." All HCFA agency employees or personnel under the control of contractors having access to records will be notified of confidentiality of the records considerations and of criminal sanctions for unauthorized disclosure of information.

TECHNICAL APPROACH:

HCFA is committed to implementing the UCDSS and ensuring that its

implementation is supported by thorough evaluation. The strategy for the next round of PRO contracts will reflect this commitment. To date, the following operational and policy decisions have been made.

- HCFA will initially implement the UCDSS to support the Cooperative Cardiovascular Project. The Clinical Data Abstraction Centers will abstract medical records for beneficiaries receiving selected cardiovascular procedures and/or diagnoses. Ultimately, CDACs will abstract medical records for 10 percent of inpatient discharges (approximately 1 million records each year).

- UCDSS will be fully phased-in during the course of the next round of PRO contracts. The scope of work for the next round of contracts will reflect the planned phase-in of the UCDSS. A HCFA workgroup is charged with identifying an appropriate level and approach for case review under the scope of work. A draft scope of work was released to the PROs and representatives of the health care community on April 28, 1992.

- It is anticipated that all 53 PROs will be operating under the new scope of work by the end of 1993.

- HCFA will continue to work with the PROs and the health care community to refine the UCDSS components: the Data Dictionary (which defines the data elements), the Data Collection System (the computer program for data entry), the Patient Care Algorithm System (PCAS) (which is used for case selection), and the Case Summary (which displays the data abstracted and the results of the algorithms).

- We will consult with interested parties regarding the performance standards which UCDSS, PCAS, and CDACs should attain before we begin to use CDACs to abstract the UCDS for case review screening. Once we have defined performance measures, which we will make public, we will employ these measures in our implementation evaluation of the UCDSS.

- Any change in the use of the UCDSS will be implemented with a sufficient amount of lead time to facilitate the phase-in, tentatively no less than 6 months after performance measures meet the standards.

The primary Federal Information Processing (FIP) Resource to be acquired is data entry/abstraction services to foster extraction of clinical data from hospital medical records under control of an expert system design to identify various aberrant conditions with the medical delivery style vis-a-vis nationally accepted practice styles.

In addition to the data entry/abstraction staff, the contractor must supply FIP equipment to support the abstraction process. The Government will supply the necessary software to perform abstractions, but the contractor will have flexibility

to recommend a different configuration that will be less costly and still achieve the same objective required by HCFA. A secondary FIP resource will be the hardware and software to support workload management and control. Again, the contractor is free to propose any approach, but it must be compatible with prescribed HCFA reporting requirements.

The UCDSS portion of HCQII is addressed in more detail in IRM Supporting Initiative HCF-94-1A. This system is designed to process data using a Windows environment accessible via a local area network configuration and is programmed in dBase III utilizing a Clipper compiler. Again, the contractor is free to propose any systemic approach as long as it is compatible with all external hardware systems required for interface and the HCFA mandated record formats are maintained. If a contractor proposes a telecommunications-based system it will be mandated that the FTS 2000 network be utilized and all HCFA Data Center protocols be employed.

MILESTONES AND MEASUREMENTS:

Agency Procurement Request to the Department to contract with CDACs	5/21/92
CDAC APR Forwarded to GSA by the Department	6/19/92
Strategic Planning for HCQII Support Services	7/92 - 12/92
Delegated Procurement Authority received	7/31/92
Completion of the Request for Proposals for CDACs	7/31/92
Release of the RFP to the Dept/GSA	8/7/92
Release the RFP to the Public	9/7/92
All CDAC proposals due to HCFA	10/21/92
Technical and Business Evaluation Panels -- initial evaluations due	12/4/92
Audits of Proposals Complete	1/18/93
CDAC Negotiations Begin	2/8/93
CDAC Negotiations End	2/22/93
CDAC Best and Final Offers Due	3/8/93
CDAC Final Contract Award	3/29/93
CDAC Start-up	4/93
CDAC CCP Implementation	7/93
CCP and phase-in of random sample	1/94 - 12/94
Full 10 percent random sample data abstraction	1995 - 1997

MAJOR IRM INITIATIVES

OPDIV: HCFA

TITLE: National Integrated Medicaid Management System (NIMMS)

MII ID: HCF-94-2 DATE: 6/22/92

DESCRIPTION/PURPOSE:

HCFA, in consultation with OMB, State Medicaid agencies, and other national organizations, is creating the automated National Integrated Medicaid Management System (NIMMS). This is a three-pronged approach that encompasses:

- o Medicaid Program Budget Report (Form HCFA-37)
- o State Medicaid Program Characteristics Database
- o National Medicaid Database

JUSTIFICATION:

A joint OMB/Departmental Task force investigated the continued and unanticipated increases in Medicaid expenditures. Medicaid expenditures are projected to surpass those of the Medicare program in the near future. The Task Force found that a major barrier to improving management of the Medicaid program is the lack of an integrated and comprehensive national Medicaid management information base. NIMMS will be a comprehensive national database that integrates Medicaid financial, program characteristics, and statistical information. NIMMS is an investment for improved management of the Medicaid program, including:

- o Operational and Financial Oversight
  - Enhanced information to ensure appropriate and indepth reviews of State budget submissions;
  - State-by-State budget projections of the top 10-15 State programs;
  - A "look-behind" evaluation of State programs;
  - Better estimates and assumptions for State budget projections, budget pressures, and plan amendments; and,
  - Accurate and accessible State program characteristics to facilitate management and analysis.

- o Policy Formulation and Evaluation

  - Enhanced support for legislative and regulatory policy development for which lack of data currently complicates the development of estimates.

- o Research

  - Discrete subsets of data for highly specialized research applications, and
  - Availiblity of data from a larger number of states resulting in broader analysis of trends and patterns in enrollment, utilization, and expenditures.

- o Health Care Reform

  - The only comprehensive health database representing the nation's population for analysis of health reform proposals, and
  - Could be incorporated into a health reform database that extends beyond the Medicaid population.

- o Technical Assistance

  - Extensive technical assistance to bring additional States into the database and help current Medicaid Statistical Information Systems States modify to the new requirements.

- o State Plan Reviews

  - Better reviews of State Plan amendments to determine acceptability and
  - Processing of State Plan changes including donations, taxes, and Disproportionate Share Hospital payments.

- o Publications/Reports and Extraction/Analysis of Data Utilization

  - Reduction in State cost and effort associated with hardcopy reporting through automation of the State plan preprints, and
  - More responsive reports to Congress

- o Response to Inquiries
  - Expanded Medicaid data development activities in response to general inquiries and internal needs.

This initiative will help raise the level of resources for managing the Medicaid program commensurate with its national prominence.

INFORMATION MANAGEMENT CONSIDERATIONS:

- o Some new data being collected -- will require OMB approval.
- o Some new databases expansion and enhancement of existing databases.
- o Will improve access/dissemination -- HCFA will have access to previously unavailable data and traditionally manual process will be automated (e.g., State Plans).
- o Will adhere to HCFA database and data dictionary standards.

INFORMATION SECURITY:

The initiative will adhere to HCFA security procedures for claim-level and budget data. Contractors must demonstrate appropriate security safeguards to ensure compliance with the requirements of OMB Circular A-130, Management of Federal Information Resources; HHS Automated Information Systems Security Program Handbook; HCFA AIS Guide, g:0805-1, "Systems Security Policies;" and the Privacy Act.

TECHNICAL APPROACH:

HCFA will acquire contract support for the following:

- o Medicaid Program Budget Report (Form HCFA-37)
  - to link HCFA-37 database to two other databases;
  - to enhance systems; and,
  - to improve State access.
- o State Medicaid Program Characteristics Report
  - for enhancements requested by OMB (e.g., automate and modify State Plan Process) and,
  - to increase online user access (RO and CO).

- o National Medicaid Database

  - for systems development and modifications;
  - for technical assistance to States;
  - for data dissemination;
  - for developing discrete and sample data sets; and,
  - for linkage to other databases.

- o DBMS approach -- Model 204

- o FTS2000 used for communication between States and HCFA Data Center (HDC)

MILESTONES:

1992
Develop requirements for enhancement of MSIS data, including new service/eligibility criteria and additional data elements

Develop new interim HCFA-2082

Develop and load State Profile Data system

Develop State Profile Data reporting capability and prepare first OMB Report

Begin development of new budget form HCFA-37, including Budget Pressures Report

1993
Complete State consultation and OMB approval process for new MSIS requirements

Bring new States into MSIS, with emphasis on large-budget States

Complete HCFA and State programming changes needed to implement new MSIS requirements

Implement MSIS data quality improvement initiative

Implement form HCFA-37, including Budget Pressures Report

Add new subject areas to State Profile system

Improve user access to State Profile data to support program operations and analysis

1994
Bring new States into MSIS, chosen from the top 12 not currently participating

Begin developing new data subsystems and datasets

Implement revised interim HCFA-2082

Begin phase out of overlapping MSIS/Tape-to-Tape States

Link Medicaid databases

1995
Bring additional volunteer States into MSIS

Complete phase out of Tape-to-Tape program

Complete automation of State Plan Preprint

1996
Bring additional States into MSIS program

Complete automation of State Plan operations

1997
Bring remaining States into MSIS program

MAJOR IRM INITIATIVES

OPDIV: HCFA

TITLE: Satellite Teleconferencing for State Survey Training

MII ID: HCF-94-4 DATE: 6/22/92

DESCRIPTION/PURPOSE:

HCFA trains State surveyors and Federal surveyors in regional offices. Traditional classroom training methods have not adequately supported the diverse, specialized needs of the geographically dispersed surveyor population. The teleconferencing system will enable faster and more consistent communication to States and regional offices on the interpretation and application of regulations. It will also provide live, real-time training for applications across the spectrum of providers and suppliers. The uplink site will be located in the Single Site facility and connected to downlink sites in the regional offices and each State agency. Until HCFA installs these permanent facilities, the training course transmissions will come from leased sites.

TECHNICAL APPROACH:

Competitive procurement.

MILESTONES AND MEASUREMENTS:

Final report on analysis and design downlink satellite network contract	10/91
Award RFC for pilot training	01/92
Transmit pilot training course to State and regional surveyors	06/92
Evaluate training course	07/92
Award RFC to install downlinks for satellite capabilities	09/92
Award RFC to migrate downlinks to State agencies	FY95
Award RFC to migrate uplink to single site facility	FY95

MAJOR IRM INITIATIVES

OPDIV: HCFA

TITLE: Information Systems Empowerment Strategy (ISES)

MII ID: HCF-94-5 DATE: 6/22/92

DESCRIPTION/PURPOSE:
The ISES initiative is a multi-faceted endeavor that provides functionality through the integration of a variety of technologies. The individual efforts under ISES will empower HCFA's user community through:

- o simplified, improved access to HCFA databases;
- o ability to share data and applications across platforms;
- o access to specialized technology;
- o ability to access and share text and imaged databases;
- o ability to mail/receive notes and documents; and,
- o ability to develop mainframe software at the PC.

JUSTIFICATION:

ISES is basically a productivity improvement initiative that should enable HCFA to do "more with less" and increase overall quality by empowering employees with data and information on their desktops. Consequently, the quantifying of savings should focus on the elaboration of benefits and efficiencies to be realized. ISES represents a strategic vision which will enable HCFA employees to address programmatic and management issues through the access, creation and movement of information directly from their worksite. Employees will be "networked" to the Agency computers and have transparent access to a universe of diverse databases thereby "empowering" them to utilize this information in an effective, efficient and facile manner.

In addition, ISES is intended to maximize the return on the investment in PRISM by cultivating a universal understanding of the database environment, improving users ability to access the databases, bringing tools and data together at the desktop, and utilize technology to better meet the dynamics of HCFA programs.

One area that should provide savings is through developing mainframe software at the PC. By transferring the majority of these jobs to desktop MIPS, HCFA would realize savings. HCFA also expects to realize additional savings by freeing

mainframe MIPS for other than batch jobs, i.e. TSO, M204, DASD, Tape Storage and Print lines. Finally, PC-based mainframe applications would leverage the power of desk-top MIPS by further increasing the return on those PCs already purchased for use by mainframe programmers.

TECHNICAL APPROACH:
The technical approach for ISES is presented in the following six major categories:

1. Share data and applications across platforms

   HCFA will link all platforms, data, and applications through a common interface on the PC. This interface will feature linkages to all PRISM databases through 4GLs such as Focus, a multitasking environment for concurrent execution of two or more tasks, access to summarized information in graphic form through an Enterprise Information System (EIS), automated software distribution solutions, and the ability to transparently access any application regardless of the platform on which it runs.

   a. Multi-tasking Pilot

      As users apply their PCs to more and more complex tasks, they will have a growing need to perform multiple concurrent tasks with their PCs. HCFA plans to investigate various multi-tasking environments during 1993 and perform a pilot during 1994 with the assistance of a contractor. A limited deployment of multi-tasking software will take place in 1995, with more general deployment in 1996.

   b. Enterprise Information Systems (EIS)

      EIS will allow HCFA executives and analysts access to critical program statistics in easy-to-interpret tabular and graphic formats. During 1993, HCFA will acquire microcomputer-based software for evaluation and develop a PC-based pilot EIS during 1994. Also during 1994, this EIS will be extended to a group of approximately 40 HCFA analysts, requiring additional software and training. From 1995 through 1998, HCFA will implement additional EIS projects requiring further training and software.

   c. Automated software distribution solutions

      The lease of an automated software distribution package for the mainframe will enable the automated download to the PC of the latest version of PC-based software. This will ensure, for instance, that users of the automated Time and Attendance

system will be working at all times with the latest version of the software.

2. Access to specialized technology

There are two concurrent approaches to this part of ISES: 1)The conversion of HCFA's successful Individual Learning Center (ILC) to an End User Computing Support Center (EUC Support Center) reflects the EUC community's changing needs, and 2) The creation of a "Model Office" to be used as a testing area for new software and hardware anticipates those changing needs. The EUC Support Center will provide support services and enable management, professional, and clerical staffs to become proficient and self-sufficient computer users. The "Model Office" will allow an office automation (OA) staff to test out ideas and configurations of hardware and software without disrupting HCFA's daily workflow.

a. Convert an existing training center to a support center, staffed by resident "experts," with emphasis on fulfilling the changing needs of a dedicated user community. The EUC Support Center can be accomplished using current software and hardware inventories and existing HCFA and FMC Microcomputer Support personnel. The EUC Support Center can be maintained and enhanced using EUC/DC acquired software and hardware inventories, and then existing or hired HCFA and FMC Microcomputer Support personnel.

b. Create a "Model Office" where constant changing OA needs can be challenged by up-to-date methods. Acquisition plan can proceed cautiously as budget allowances/constraints converge with technology breakthroughs and staff successes. Initial *hardware* would include, but not be restricted to, a state-of-the-art file server with upgraded RAM, large fixed disk capacity with mirroring, a "Jukebox" (multiple platter) CD-ROM drive, communication server, a gateway, a DAT-based image storage device, a FAX send/receive modem, a high volume output (22 ppm) laser printer with cartridge fonts and upgraded RAM, and a high capacity DAT backup device. *Software* would include a Windows-like Graphical User Interface (GUI), E-mail, communications access to a WAN, Desk Top Publishing (DTP), spreadsheet with DTP-like enhancements, database with DTP-like reporting capabilities, communications with multiple baud and protocol characteristics, wordprocessing with multiple fonts (e.g. courier, dutch-roman, etc.) and font types (cartridge/soft), terminate and stay resident (TSR) personal information. The network. The network nodes would contain 4mb RAM, High resolution VGA monitors equipped according to applications used

(e.g. 1mb RAM where many colors are needed), 3270 emulation, LAN access, DOS shell.

3. Access to Hard Copy Documents

The Baltimore-based portion of the Office of Executive Operations (OEO) would have a stand-alone workstation capable of scanning incoming correspondence, sending it by FAX to OEO in Washington, disseminating it to the appropriate HCFA organization for response, and accessing the Washington-based system to retrieve previously stored correspondence. Other HCFA organizations to receive the facsimile capabilities would most likely include those organizations that handle executive correspondence on a regular basis.

4. Ability to Receive Notes/Documents

Based on the findings of the user needs assessment, HCFA will develop specifications and survey the market to pinpoint current technology that meets the Agency's needs. This analysis will consider a number of possible alternatives such as: 1) an upgrade and/or add-on to the existing electronic mail system to take full advantage of new technology such as mail delegation, user selected function keys, incoming mail retention management capabilities, and system access methods; 2) replacement of existing mail system with another mail system which may more completely meet the needs of the Agency; and, 3) the migration of LAN users to a LAN-based electronic mail system. These options will all be analyzed as appropriate.

There are two alternatives for providing Electronic Data Interchange (EDI) with HCFA Agents.

The first alternative provides a short term solution to provide EDI capability using the existing e-mail system and host computers. This alternative would require connecting any of the 400 agents not currently on HCFA PROFS system to the local regional nodes. HCFA would provide PASF/PC while the agents would acquire any additional software (FT TERM, EZVU, WordPerfect) or hardware (PC, modem) that they currently do not have. These agents would also use the 1-800 numbers which will be in place during FY 1992. Based on current PROFS utilization data for agents on the PROFS system, HCFA projects that all agents would average 1.5 10 minute sessions per day.

The second alternative provides a longer range solution using emerging technology. It would establish an X.400 system that permits contractors to have electronic data interchange (EDI) capability with HCFA through the use of their own e-mail system. HHS is currently working with HCFA to establish such a system through a software package called

Softswitch. Softswitch will permit HCFA to have EDI capability with all the other agencies that comprise the HHS. If HCFA's agents cannot use the Department's Softswitch, HCFA would have to purchase its own version. Agents would still employ the 1-800 number, but we estimate that the cost would be reduced by one-third as the connect time would start when the agent pressed the send button and not with the creation of the note as occurs under the first alternative.

5. Develop Mainframe Software at the PC

HCFA proposes a several stage approach to this effort:

a. Conduct Programmer's Workbench Pilot.

b. Purchase software and training for the first 27 programmers.

c. Purchase software and training for the second 100 programmers.

d. Purchase software and training for an additional 104 programmers.

6. Workstation Procurement

HCFA plans to recompete the current End User Computing (EUC) contract for award to coincide with the expiration of the existing contract in April 1994. The proposed procurement will replace HCFA's outmoded PC platform and secure state-of-the-art workstation capability throughout the Agency. The strategy for PC replacement will be to move up two generations to realize significant gains in processing power, but not to move up to the very latest PCs which would bring premium prices. With this strategy, 80286-based PCs would be replaced with 80486 (or 80486SX) PCs.

The contract will be used to acquire total PC workstations including desktop, laptops, notebooks, and associated peripherals (printers, storage devices, etc.). An option will include systems and applications software. Provision will also be made for technology upgrades. This approach will ensure the presence of a contractual vehicle to provide ongoing microcomputer capacity dedicated to individual HCFA staff.

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

Attachment E
Supporting IRM Initiatives

Attachment E

SUPPORTING IRM INITIATIVES

TITLE: HCQII Support Services:
- o UCDSS abstraction software evaluation and refinements
- o The Patient Care Algorithm System (PCAS) of case selection
- o Analysis
- o Training

SII IDENTIFIER: HCF-94-1A DATE: 6/18/92

PROCUREMENT STRATEGY: Contracts by means of full and open competition

DESCRIPTION:
In support of the overall Health Care Quality Improvement Initiative (HCQII), HCFA is planning to enter into multi-year competitive contracts for the evaluation and refinement of the Uniform Clinical Data Set System (UCDSS), particularly the abstraction software and the Patient Care Algorithm System (PCAS). Contractors will analyze the UCDSS and propose modifications to enhance the efficacy and effectiveness of the system as a data gathering vehicle to provide clinical data for research and epidemiologic studies, and as a screening vehicle for claims that may present potential quality and utilization problems. Once HCFA approves the contractors' recommendations, contractors will modify the system, test the changes, implement the recommendation(s), disseminate the revised system software to users, and revise the system documentation, users manuals and training materials accordingly.

The UCDSS is a system used to collect clinical information from hospital medical records, screen cases for physician review, and summarize the pertinent findings of selected cases. The UCDSS direct data entry software is used to abstract clinical data on up to 1800 separate data elements. For the typical inpatient medical record, the software will select 200 to 350 data elements, including patient demographics, history and medical interventions. The PCAS is that portion of the UCDSS that applies a series of rule sets to data abstracted from medical records and flags cases indicative of questionable utilization or quality of care.

These components comprise an expert system that identifies cases for physician review in a more uniform and reliable manner than traditional PRO case-by-case review. The UCDSS is akin to clinical practice guidelines or patterns, and must therefore be clinically reasonable and subject to an ongoing public process of validation, update, modification and refinement.

JUSTIFICATION:

The overall HCQII goal is measurable improvements in overall patterns of care and the resulting outcomes of the care provided. PRO pattern analysis is perceived to be the basis for supporting the need for ongoing education and

guidance to the various medical specialty groups and providers of service to Medicare beneficiaries. HCQII will help health care providers improve the mainstream of care through the promulgation of practice guidelines. Current review practices will fundamentally change, including:

- o giving PROs explicit, nationally uniform criteria to examine patterns of care and patterns of outcomes;

- o focusing review on observable patterns of care and outcomes differences rather than on unusual episodes of care that are statistical outliers; and,

- o providing these patterns to providers so that they may conduct more intrusive, detailed studies.

INFORMATION MANAGEMENT CONSIDERATIONS:

The UCDSS collects clinical information necessary to make determinations regarding appropriate utilization and quality of care. The information collected is essential to support current and future program mission needs in appropriate refinement of the methodology for medical review.

The purpose of this procurement is to acquire services necessary to allow us to maximize use of the UCDSS information. The refinement portion of the procurement will gather needed information, including the latest medical practice guidelines, to refine and enhance the software and to make it more efficient. The analysis services portion of the procurement will enable us to optimize the utility of the data in public health care policy setting and medical review. Of course, training provisions must be incorporated to ensure proper dissemination of system refinements.

INFORMATION SECURITY:

Confidentiality of medical records must be maintained in accordance with Section 1160 of the Social Security Act. That section describes prohibitions against disclosure of information regarding beneficiaries and practitioners. Contractors also must demonstrate appropriate security safeguards to ensure compliance with the requirements of OMB Circular A-130, Management of Federal Information Resources; HHS Automated Information Systems Security Program Handbook; HCFA AIS Guide, g:0805-1, "Systems Security Policies;" and the Privacy Act.

TECHNICAL APPROACH:
The FIP resources to be acquired under HCFA direction include the following:

a. Contractor(s) will: develop a systematic means for ongoing evaluation of the UCDSS to ensure that it is capturing the correct and/or necessary data

to carry out the intent of the system; conduct the evaluation; maintain and refine the system components; present recommendations for changes to HCFA; and, upon approval, make the necessary modifications to the system.

b. Contractor(s) will: develop a systematic means for ongoing evaluation and analysis of the clinical logic and efficacy of the UCDSS algorithms; conduct the assessment; present recommendations for changes to HCFA; and, upon approval, make the necessary changes to the algorithms.

c. Contractor(s) will: evaluate the UCDS process and software systems for efficiency and effectiveness; present recommendations to HCFA for improvements; and, upon approval, make the necessary changes to the system.

d. Contractor(s), after making a thorough literature review, consulting with a broad spectrum of national experts, and coordinating with other Department agencies (e.g., NIH, AHCPR), will develop new algorithms for the UCDSS, and upon HCFA approval, implement the new algorithms.

e. Contractor(s) will: evaluate the case summary system; prepare recommendations for improvements, and make the necessary changes upon approval.

f. Contractor(s) will: prepare implementation plans; modify, test, de-bug, and disseminate the UCDSS software as directed by HCFA; and prepare and disseminate the necessary revisions to the UCDSS documentation, user manuals, English language translation, and training materials.

g. Contractor(s) will: evaluate hardware and software technology and make recommendations to improve the efficiency and cost effectiveness of the UCDSS for HCFA and its contractors (CDACs and PROs).

h. Contractor(s) will: design, create, and maintain epidemiologic databases of UCDSS information and provide a high level of medically and economically oriented statistical analysis expertise to support HCFA's HCQII, in studies of sensitive program areas such as analysis of patterns of care and patterns of outcomes, geographic variations analysis, and other epidemiologic issues in terms of mortality, morbidity, disability and cost.

MILESTONES AND MEASUREMENTS:

While the HCQII is being phased-in over the course of the next 5 years, the UCDSS refinement effort will be a continuous process.

Principal milestones will be driven initially by the acquisition plan for Clinical Data Abstraction Centers, the phased implementation of HCQII projects such as the Cooperative Cardiovascular Project (CCP), and conversion of PROs from case-by-case review methods to the systematic approach dictated by the HCQII.

Strategic Planning	07/92-12/92
CDAC Acquisition	thru 4/93
CDAC Implementation	7/93
CCP Implementation	7/93
Implementation of 6 percent random sample of Medicare cases employing UCDSS	01/94-12/94
Implementation of 10 percent random sample of Medicare cases employing UCDSS	1995 - 1997

SUPPORTING IRM INITIATIVES

TITLE: Clinical Data Abstraction Centers (CDAC)

SII IDENTIFIER: HCF-94-1B DATE: 6/19/92

PROCUREMENT STRATEGY: Contracts by means of full and open competition

DESCRIPTION:
The UCDSS information discussed in the HCQII overview (HCF-94-1) will be compiled by private entities, called Clinical Data Abstraction Centers, with HCFA contracts to abstract medical information with the UCDSS direct data entry software. For the typical inpatient medical record, the UCDSS will capture 200 to 350 data elements, including patient demographics, history, and medical intervention. The data abstraction workload will be phased-in. Ultimately, the UCDSS will collect data from a 10 percent sample of Medicare inpatient hospital discharges (approximately 1 million records per each year).

JUSTIFICATION:
HCFA has concluded that the data abstraction workload can be performed more effectively and efficiently within the framework of a limited number of contracts specifically focused on UCDS data abstraction, rather than through the 53 separate PRO contracts. The use of CDACs may represent a significant chance for HCFA to realize meaningful progress and cost-savings in the implementation of the HCQII.

The success of the HCQII is largely dependent upon consistency of UCDS data abstraction. A limited number of abstraction-focused contracts will allow HCFA to carefully control the consistency, reliability, and timeliness of data abstraction. A limited number of single-purpose data abstraction contracts will provide increased opportunities to standardize the abstraction protocol, to put production standards into place, and to implement rigorous quality control procedures.

An alternative analysis that summarizes the information in the CDAC Agency Procurement Request justifying this approach is included as an attachment.

INFORMATION MANAGEMENT CONSIDERATIONS:

PROs will analyze patterns of medical care and outcomes using the UCDSS. The success of the HCQII is largely dependent upon the consistency and accuracy of UCDSS data abstraction. The purpose of this contract is to procure CDACs to perform the medical record data entry and abstraction services. After examining alternatives for accomplishing this immense workload in detail, HCFA concluded that it can be performed more effectively and efficiently within the framework of a limited number of contracts specifically focused on UCDS data abstraction, rather than through the 53 separate PRO contracts.

CDACs will have access to confidential records that will ultimately become part of HCFA's System of Records, Uniform Clinical Data Set System, system #09-70-1516. The PRO statutory language contains special provisions for protecting medical record information collected. CDACs will be made aware of these provisions. In addition, CDACs must take safeguards to ensure that records are not used for any purpose other than stated in the scope of work and will be required to have established procedures in place for maintaining the confidentiality of medical record data.

INFORMATION SECURITY:

HCFA is committed to maintaining the confidentiality of the medical records and the privacy of the individual. CDACs must maintain the confidentiality of medical records in accordance with Section 1160 of the Social Security Act. This section describes prohibitions against disclosure of information regarding beneficiaries and practitioners.

CDACs must also demonstrate appropriate security safeguards to ensure compliance with the requirements of OMB Circular A-130, Management of Federal Information Resources; HHS Automated Information Systems Security Program Handbook; HCFA AIS Guide, g:0805-1, "Systems Security Policies;" and the Privacy Act.

TECHNICAL APPROACH:

The primary FIP Resource to be acquired is data entry/abstraction services to draw clinical data from hospital medical records. Since the UCDSS is a new system, research indicates that there are no current contractors staffed to provide the needed service at the anticipated workload volumes with the timeliness and accuracy performance measures specified in the scope of work.

The contract requirements provide considerable flexibility for the contractors to determine the appropriate staffing mix for the service. However, the requirements do specify minimum ratios of clinical and coding technical assistants and management that must be available.

POCI	Physician Ownership and Compensation Interest
POR	Provider Overpayment Recovery System
PORT	Patient Outcome Research Teams
PPR	Physician Payment Reform
PPS	Prospective Payment System
PRISM	Project to Redesign Information Systems Management
PRO	Peer Review Organizations
PROFs	IBM's Professional Office System
PSC	Program Service Centers
PSOR	Physician/Supplier Overpayment Recovery System
PSRO	Professional Standards Review Organization
PT	Proficiency Testing
PUFs	Public Use Files
QA	Quality Assurance
RHHI	Regional Home Health Intermediary
ROs	Regional Offices
SADBUS	Small and Disadvantaged Business
SII	Supporting IRM Initiative
SMI	Supplementary Hospital Insurance
SNF	Skilled Nursing Facilities
SPAs	State Plan Amendments
SSA	Social Security Administration
TEFRA	The Tax Equity and Fiscal Responsibility Act of 1982
TIMS	Text Information Management System
UCDS	Uniform Clinical Data Set
UPIN	Unique Physician Identification Number
UPS	Uninterruptable Power System
VA	Department of Veterans' Affairs
VAN	Value Added Network
WAN	Wide Area Network
WORM	Write Once, Read Many

MFS		Medicare Fee Schedule
MII		Major IRM Initiative
MIPS		Millions of Instructions Per Second
MOA		Memorandum of Agreement
MOU		Memorandum of Understanding
MSIS		Medicaid Statistical Information System
MSP		Medicare Secondary Payers
NAIC		National Association of Insurance Commissioners
NAPA		The National Academy of Public Administrators
NCC		National Computer Center
NCH		National Claims History
NCHDB		National Claims History Database
NDRR		National Data Report Requirement
NFs		Nursing Facilities
NIMMS		National Integrated Medicaid Management System
NLM		National Library of Medicine
NTAS		New Time and Attendance System
NTI		National Telecom, Incorporated
Ob/Ped		Obstetricians and Pediatricians
OBA		Office of Budget and Administration
OBRA	86	Omnibus Budget Reconciliation Act of 1986
OBRA	87	Omnibus Budget Reconciliation Act of 1987
OBRA	89	Omnibus Budget Reconciliation Act of 1989
OBRA	90	Omnibus Budget Reconciliation Act of 1990
OCCPP		Office of Coordinated Care Policy and Planning
OCO		Office of Computer Operations
ODIE		Online Data Input and Editing System
OEO		Office of Executive Operations
OES		Office of Enrollment Systems
OIG		Office of Inspector General
OIRM		Office of Information Resources Management
OIT		Office of Information Technology
OLP		Office of Legislation and Policy
OMB		Office of Management and Budget
OPHCOO		Office of Prepaid Health Care Operations and Oversight
OPS		Office of Program Systems
ORD		Office of Research and Development
OSCAR		Online Survey, Certification and Reporting
OSDM		Office of Statistics and Data Management
PCAS		Patient Care Algorithm System
PHOS		Post-Hospital Outcome Studies
PHS		Public Health Service
PM		Program Management systems
PMMIS		Program Management and Medical Information System

Glossary

EDB	Enrollment Database
EDI	Electronic Data Interchange
EIS	Enterprise Information System
ESRD	End Stage Renal Disease
EUC	End User Computing
FDDI	Fiber and Distributed Data Interface
FIP	Federal Information Processing
FMC	Facilities Management Contract
FQA	Functional Quality Assurance
FULs	Federal Upper Limits
GAO	General Accounting Office
GHO	Group Health Organization
GNP	Gross National Product
GSA	General Services Administration
GUI	Graphical User Interface
HCBSW	Home and Community-Based Services Waivers
HCFA	Health Care Financing Administration
HCPPs	Health Care Prepayment Plans
HCQII	Health Care Quality Incentive Initiative
HDC	HCFA Data Center
HI	Hospital Insurance
HISDG	HCFA Information Systems Development Guide
HMOs	Health Maintenance Organizations
HSQB	Health Standards and Quality Bureau
IA	Intraagency Agreement
IEQ	Initial Enrollment Questionnaire
IIN	IBM Information Network
IP/SNF	Inpatient/Skilled Nursing Facility
IRDS	Information Resources Directory System
IRIS	Intern and Resident Information System
IRM	Information Resources Management
IRS	Internal Revenue Service
ISES	Information Systems Empowerment Strategy
ISTP	Intermediary Systems Testing Project
ITS	Information Technology Systems
IV & V	Independent Validation and Verification
LANs	Local Area Networks
MADRS	Medicare Automated Data Retrieval System
MANRLINE	Menu-driven Access to the Nearline
MCCA	Medicare Catastrophic Coverage Act
MDS	Minimum Data Set
MEDPAR	Medical Provider Analysis and Review
MEDTEP	Medical Treatment Effectiveness Program
MEQC	Medicaid Eligibility Quality Control

Glossary

4GL	Fourth Generation Languages
AAC	Associate Administrator for Communications
AAM	Associate Administrator for Management
AAO	Assoc iate Administrator for Operations
ADP	Automated Data Processing
AHCPR	Agency for Health Care Policy and Research
AIDS	Acquired Immunodeficiency Syndrome
ANCHR	Access to the National Claims History Repository
APR	Agency Procurement Request
ARS	Automatic Route Section
ASC	Ambulatory Surgical Centers
ATM	Automating Text Management
BCM	Billing and Collection Master
BDMS	Bureau of Data Management and Strategy
BEI	Medicaid Budget Estimating Initiative
CAFM	Contractor Administrative-Budget and Financial Management
CASE	Computer Aided Software Engineering
CASR	Contractor Audit and Settlement Report
CBA	Cost Benefit Analysis
CBS	Current Beneficiary Survey
CCP	Cooperative Cardiovascular Project
CD-ROM	Compact Disk-Read Only Memory
CDAC	Clinical Data Abstraction Centers
CFR	Code of Federal Regulations
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CLIA 88	Clinical Laboratory Improvement Amendment of 1988
CMP	Competitive Medical Plans
CO	Central Office
COBRA	Consolidated Omnibus Reconciliation Act of 1985
CPR	Computerized Patient Records
CPU	Central Processing Unit
CROWD	Contractor Reporting of Operational & Workload Data
CSTP	Contractor Systems Testing Project
CWF	Common Working File
DASD	Direct Access Storage Devices
DAT	Digital Audio Tape
DBMS	Database Management System
DEFRA	Deficit Reduction Act 1984
DHHS	Department of Health and Human Services
DME	Durable Medical Equipment
DME/POS	Durable Medical Equipment/Prosthetics, Orthotics and Supplies
DOL	Department of Labor
DPA	Delegation of Procurement Authority
DTP	Desk Top Publishing

Attachment G
IRM Glossary

Tactical Plan Previous Year Experience

MII Title: HCFA Data Center (HDC) Capital Improvements

STATUS:

HCFA's capacity planners analyzed the HDC baseline and new programmatic needs and determined that the Agency will need to acquire additional data center capacity prior to the move to the single site. Because of current site restrictions, HCFA would accomplish these upgrades by replacing lower capacity equipment with equipment of higher capacity and an equal or smaller "footprint" (e.g., replacement of single and double density DASD with triple density). Current expectations are that, at a minimum, a new processor and additional storage capacity should be acquired to handle increased workloads in FY 1994. These projections are based on:

- o the historic growth of HDC utilization (over 40 percent per year);
- o the industry growth standard (over 30 percent per year);
- o increased information server requirements, i.e., statistical sampling and reporting;
- o the implementation of new technologies; and,
- o the large number of new applications and data files that HCFA is required to implement.

Capacity increases required through the FY 1998 time period, taking into consideration the effect of opportunities to offload work to other processing platforms, are:

	FY 93	FY 94	FY 95	FY 96	FY 97	FY 98
CPU MIPS	49	82	76	108	119	167
DASD (GB)	350	350	400	550	650	800
NEARLINE (Slots)	6000	6000	12000	6000	6000	6000

HCFA submitted the Cost Benefit Analysis for this initiative in August 1990.

Tactical Plan Previous Year Experience

MII Title: Single Site HCFA Data Center Transition

STATUS:

HCFA evaluated alternative scenarios to accomplish the migration to the single site. We recommend a partial bridge scenario that provides for the purchase of a third CPU and peripheral equipment to establish a bridge at the new single site. The CPU and limited additional peripheral equipment will serve as a base and permit an acceptable parallel environment at the new site. The old data center will continue to run with no interruption of service to the user community during the parallel period.

The sequence of events are:

1) Install new processor and base equipment at the new site;
2) Move work of processor 1 (acquired in FY 1994 because of workload growth) to new processor;
3) Run parallel with processor 1;
4) Move processor 1 with its peripherals to new site;
5) Move work of processor 2 (current IBM 3090-600S) to processor 1;
6) Run parallel with processor 2;
7) Move remaining peripheral equipment to new site; and,
8) Excess IBM 3090-600S.

This scenario presents a limited risk since HCFA can use the "Hot Site" and the old data center on an emergency/backup contingency basis until the new Data Center is certified fully operational.

Tactical Plan Previous Year Experience

MII Title: Single Site Communications Acquisition

STATUS:
The switch will handle voice and data communications service in HCFA's planned general open-office facility. The architecture will allow for planned growth without major alterations to equipment and impact to service.

The Request for Procurement will be released following the selection of the single site location (Fall 1992).
The contract will be awarded by August - September, 1993.
The hardware, software, and wiring will be installed during 1994.

Tactical Plan Previous Year Experience

MII Title: Maintenance contract for the Common Working File (CWF)

STATUS:
One National Maintenance Contractor maintains the CWF software, a HCFA/Government-owned package. That contract expires in FY 1992 and HCFA is recompeting the contract.

Complete evaluation of proposals	06/92
Receive Best and Final Offers	08/92
Award contract	09/92

After a 3 month phase-in period, the new contractor will assume responsibility for CWF software maintenance during 1993.

Tactical Plan Previous Year Experience

MII Title: Medical Treatment Effectiveness Program

STATUS:
The Agency for Health Care Policy and Research (AHCPR) in the Public Health Service (PHS) is responsible for enhancing the quality and effectiveness of health care services through a broad base of scientific research. In 1990, AHCPR signed a Memorandum of Agreement (MOA) with HCFA for data support to the Patient Outcome Research Teams (PORT) established by AHCPR. AHCPR has renewed this agreement annually, and HCFA assumes that AHCPR will continue to rely on this data support.

Information Resources Management

Health Care Financing Administration

Fiscal Year 1994
Information Resources Management
Five Year Plan

Attachment F
Previous Year MII Experience

Submit Agency Procurement Request (APR) to DHHS	3/93
Receive Delegation of Procurement Authority (DPA)	6/93
Issue RFP	9/93
Award FMC Replacement Contract	5/94

NOTE: These dates do not reflect the possibility that HCFA may ask to extend the current contract for 15 months (through December 31, 1995) if it is in the Government's best interest to retain the expertise of the incumbent vendor during the relocation of the HCFA Data Center to the new "single site" location.

SUPPORTING IRM INITIATIVES

TITLE: Facilities Management Contract (FMC) recompetition

SII IDENTIFIER: HCF-94-3S DATE:

PROCUREMENT STRATEGY:

DESCRIPTION:
In FY 1994, HCFA's will award a new Facilities Management Contract (FMC) for operation of the HCFA Data Center (HDC) and support services. HCFA's FMC provides:

- o continued operation of the HCFA Data Center on a 24 hour 7 days per week basis;
- o minicomputer, systems software, and telecommunications operational support;
- o a variety of technical services for the HDC including operational planning, performance measurement, capacity planning, and procurement support;
- o training, Action Desk, and PC maintenance and installation support to HCFA's PC user population; and,
- o assistance in the release of Public Use Files and documentation to epidemiological researchers and the public.

JUSTIFICATION:
HCFA does not have the staff or expertise necessary to provide these functions.

INFORMATION SECURITY:
The policy and procedures in HCFA's systems security program apply to HCFA personnel and HCFA contractors. HCFA's policy is to implement and maintain a comprehensive ADP systems security program for ensuring the existence of adequate safeguards to protect personal, proprietary, and other sensitive data in automated systems and to ensure the physical protection of all HCFA ADP systems and facilities.

TECHNICAL APPROACH:
Competitive award.

MILESTONES: (Please see note below)

- Positioned for the Future: With the addition of a file server, a LAN topology becomes a full-service LAN with no lost investment.

The benefits of a full-service LAN are:

- Shared Hardware: Sharing hardware such as printers, large disk drives, and CD-ROMs eliminates the need to buy additional hardware and guarantees the most efficient use of resources.

- Shared Software: Sharing server-based software, such as WordPerfect and Lotus, reduces purchase and upgrade costs, reduces support requirements, and guarantees compatibility among users.

- Shared Information: Storing information only one time and in one location saves time and storage and reduces data inconsistencies.

- Controlled Backups of Information: A central, controlled backup procedure for data stored on the file server is more reliable than backups performed by individual PC users.

- Multi-user Application Platform: A LAN may be the most appropriate and cost-effective platform for applications that only serve users within one organization.

INFORMATION SECURITY:
The Network Operating System contains data security features that will protect the information stored on the file server better than that stored on stand-alone PCs.

TECHNICAL APPROACH:
As Single Site is constructed, a wiring plant to include a fiber optic backbone and twisted pair copper wire, to the workstations, will be installed. Backbone nodes will connect the copper wire to the backbone, supporting a variety of devices to include: LAN gateways, controllers, HDC computers. As HCFA components move into the Single Site facility, they will be connected to the wiring plant using the connectivity devices moved with them. With the move, non-LAN methods of connectivity will be replaced with LAN Topologies or, if justified, full service LANS.

MILESTONES:

Submit Agency Procurement Request (APR) to DHHS	10/92
Receive Delegation of Procurement Authority (DPA)	01/93
Issue RFP	04/93
Award LAN contract	12/93

SUPPORTING IRM INITIATIVES

TITLE: Establish HCFA-wide LAN Connectivity

SII IDENTIFIER: HCF-94-2S DATE:

PROCUREMENT STRATEGY: Competitive

DESCRIPTION:
During FY 1994-1995, HCFA plans to provide Local Area Network (LAN) connectivity to all Central Office components. Mainframe computers, mini-computers, communications devices, PCs, and peripheral equipment will be interconnected using an optical fiber backbone, backbone Dual Attach Devices, and twisted pair copper wire.

The LAN wiring plant will be installed with the switch at the Single Site facility. Initially, HCFA will only connect to the backbone those components that have LAN capabilities at the time of the move (projected at approximately 30 percent of the total HCFA Central Office population). As justified, HCFA will migrate other components from the outdated hard-wired controller and dial-in technology to the more current LAN technology. Approximately 14 backbone nodes (14 additional nodes will be required for backup capability) will eventually be used to connect approximately 105 organizational LANs to the Single Site backbone. Initially, LAN connectivity will only be to mainframe and minicomputers at the HDC and to gateway devices. HCFA will continue to evaluate the need for file servers, facsimile servers, print servers, and LAN-based applications software that may be required for full-service LANs. The procurement will include:

- o LAN hardware;
- o LAN management software;
- o Gateway communications software;
- o Network Operating System software; and,
- o LAN utility software.

JUSTIFICATION:
LAN connectivity is the preferred method of providing connectivity to HCFA components. This connectivity is provided in two ways: 1) LAN Topology -- connection of PCs to the HDC through a LAN wiring plant and a gateway, and 2) Full-service LAN -- the enhancement of a LAN Topology with the addition of file servers, fax servers, print servers and other LAN enhancements.
The benefits of a LAN Topology are:

- o Fast, Reliable Connectivity: A LAN topology features a gateway, with a dedicated line to the HDC, that provides each user with fast and reliable connectivity for applications such as the PROFS office automation system.

- o Medicare contractor management systems;
- o the Resident Assessment database; and
- o the Uniform Clinical Data Set.

JUSTIFICATION:

HCFA needs a minimum level of software development contract support merely to fulfill its basic programmatic mission or data necessary to perform functions such as claims payment will not be available. Without a higher level of support, HCFA will experience the rapid degradation of some of its most critical program management systems. Failure to provide the full level of funding associated with this request will jeopardize the accomplishment of some of the Administration's major goals such as improving health care quality and reducing the administrative cost of our agents.

INFORMATION SECURITY:
Each new system processing sensitive data is required to have a security plan as part of its documentation before the system is considered complete. The policy and procedures in HCFA's systems security program apply to HCFA personnel and HCFA contractors. HCFA's policy is to implement and maintain a comprehensive ADP systems security program for ensuring the existence of adequate safeguards to protect personal, proprietary, and other sensitive data in automated systems and to ensure the physical protection of all HCFA ADP systems and facilities.

TECHNICAL APPROACH:
Competitive award.

MILESTONES:

Submit Agency Procurement Request (APR) to DHHS	2/92
Receive Delegation of Procurement Authority (DPA)	4/92
Issue RFP	7/92
Award Systems Analysis Design and Programming Contract	11/92

SUPPORTING IRM INITIATIVES

TITLE: Systems Analysis Design and Programming

SII IDENTIFIER: HCF-94-1S DATE:

PROCUREMENT STRATEGY:

DESCRIPTION:

HCFA will have a continuing need to utilize outside programming services. The Agency faces many pressures:

- to maintain and enhance current systems;
- to develop the new systems identified in the Strategic Plan;
- to automate additional administrative functions; and,
- to help the user population make effective use of the workstation tools.

These factors make it imperative for HCFA to pursue a software development strategy that includes contractor support to augment government staff as necessary when workload peaks occur or for initiatives requiring specialized expertise.

Examples of systems that this contract will support include:

- Physician Practice Patterns;
- the Outpatient Hospital Payment System;
- the Hospital Cost Report Information System,
- Medicare Secondary Payer systems;
- Coordinated Care systems such as the Plan Information Control System and the Beneficiary Information Tracking System;
- Premium Collection systems;
- the Online Survey, Certification and Reporting system;
- the systems that provide access to the 100 percent and 5 percent National Claims History databases;